DEPARTMENT OF THE ARMY
HEADQUARTERS, USA MEDICAL DEPARTMENT ACTIVITY
FORT LEONARD WOOD, MISSOURI 65473-5700

REPLY TO
ATTENTION OF

S: 26 August 1994

HSXP-PM (40) 8 July 1994

MEMORANDUM FOR Commander, HQ, USA ATCOM, ATTN: SATAI-A (Mr. Canupp, Sr.), 4300 Goodfellow Blvd, St. Louis, MO 63120

SUBJECT: Unknown Crystals Growing in Basement of Building No. 3, St. Louis Army Ammunition Plant (SLAAP)

1. In February 1994, Mr. Carl Barber of Preventive Medicine Service, Industrial Hygiene Section, took samples of white crystals that were growing in the basement of Building No. 3, SLAAP. These samples were sent to the Industrial Testing Laboratory at St. Louis, Missouri for identification.

2. Findings:

a. The crystals have been identified as pure urea.

b. See enclosed Material Safety Data Sheet (MSDS) for general information.

3. Recommendation. Follow precautions stated in the enclosed MSDS for safe handling and removal.

4. A safety Risk Assessment Code (RAC) of 4, IIB and a Health Severity Code (HHSC) of 3, IIB are assigned. The Safety and Health hazards associated with handling this material are "moderate". Recommend you inform Preventive Medicine Service in writing NLT 26 August 1994, identifying actions taken (proposed on the above subject matter. Send all information copies to Mr. Carl Barber, Preventive Medicine Service, Industrial Hygiene Section, Fort Leonard Wood, Missouri.

5. Point of Contact is Mr. Barber, (314) 596-0064 or DSN 581-0064/6861.

GEORGE L. SAMPSON
COL, MC
Chief, Preventive Medicine Division

Encl
as

Ingredients/Identity Information

Proprietary: NO
Ingredient: UREA
Ingredient Sequence Number: 01
Percent: 100
Ingredient Action Code:
Ingredient Focal Point: D
NIOSH (RTECS) Number: YR5250000
CAS Number: 57-13-6
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: NOT ESTABLISHED
Other Recommended Limit: UNKNOWN

Physical/Chemical Characteristics

Appearance And Odor: WHITE SOLID, SPHERICAL SHAPE(PRILL) WITH SLIGHT AMMONICAL ODOR
Boiling Point: N/R
Melting Point: UNKNOWN
Vapor Pressure (MM Hg/70 F): N/R
Vapor Density (Air=1): N/R
Specific Gravity: 1.335
Decomposition Temperature:
Evaporation Rate And Ref: NOT APPLICABLE
Solubility In Water: 108GM/100CC @68F
Percent Volatiles By Volume: N/R
Viscosity:
pH: NOT AE
Radioactivity:
Form (Radioactive Matl):
Magnetism (Milligauss):
Corrosion Rate (IPY):
Autoignition Temperature:

Fire and Explosion Hazard Data

Flash Point: NOT FLAMMABLE
Flash Point Method: NOT AE
Lower Explosive Limit: NOT APPLICAE
Upper Explosive Limit: NOT APPLICAE
Extinguishing Media: WATER
Special Fire Fighting Proc: WEAR FULL PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS. CAUTION!: WET UREA IS SLIPPERY.
Unusual Fire And Expl Hazrds: AT ELEVATED TEMPERATURES, UREA MAY DECOMPOSE TO CYANURIC ACID, AMMONIA, BIURET, CYANIC ACID, CARBON DIOXIDE, AND NITROGEN OXIDES.

Reactivity Data

Stability: YES
[illegible]: PLASTIC [illegible]
[illegible] WITH NITRATES, ALKALIES, OXIDIZ[illegible]
NITRIC ACID. CORROSIVE TO COPPER AND COPPER ALLOYS.
[illegible] Products: NONE

Conditions To Avoid (Poly): NOT APPLICABLE

Health Hazard Data

LD50-LC50 Mixture: LD50 (ORAL RAT) IS UNKNOWN
Route Of Entry - Inhalation: NO
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: NONE
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NONE OF THE COMPOUNDS IN THIS PRODUCT IS LISTED BY IARC, NTP, OR OSHA AS A CARCINOGEN.
Signs/Symptoms Of Overexp: A SINGLE DOSE OF 100 GMS. OF UREA SOLUTION HAS REPORTEDLY CAUSED MILD CONTRAL NERVOUS SYSTEM DEPRESSION SUCH AS DROWSINESS, SLOW REFLEXES, SLURRED SPEECH. NON-TOXIC.
Med Cond Aggravated By Exp: NOT APPLICABLE
Emergency/First Aid Proc: FLUSH EYES AND SKIN THOROUGHLY WITH WATER. SEEK MEDICAL ATTENTION IF IRRITATION PERSISTS.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: PREVENT LARGE QUANTITIES FROM CONTACTING VEGETATION OR WATERWAYS. KEEP ANIMALS AWAY FROM LARGE SPILLS.
Neutralizing Agent: NOT APPLICABLE.
Waste Disposal Method: DISPOSAL SHOULD BE MADE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
Precautions-Handling/Storing: STORE IN A COOL, DRY, WELL VENTILATED AREA. KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. PROTECT CONTAINERS FROM PHYSICAL DAMAGE.
Other Precautions: HYGROSCOPIC MIXTURES CAN BE FORMED WITH CERTAIN CHEMICALS. UREA AND MOISTURE WILL CAUSE SLIPPERY CONDITIONS.

Control Measures

Respiratory Protection: A NIOSH/MSHA APPROVED RESPIRATOR SHOULD BE USED WHEN EXPOSURE EXCEEDS THE OSHA NUISANCE DUST STANDARD OF 15 MG/M3.
Ventilation: PROVIDE LOCAL OR GENERAL VENTILATION TO KEEP DUST BELOW OSHA NUISANCE DUST LIMIT OF 15 MG/M3.
Protective Gloves: NEOPRENE, NITRILE, VPC OR NATURAL RUBBER
Eye Protection: SAFETY GOGGLES WITH OPTIONAL FACE SHIELD
Other Protective Equipment: NOT APPLICABLE
Work Hygienic Practices: OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.
Suppl. Safety & Health Data: AVOID PROLONGED OR REPEATED EXPOSURE. DO NOT GET ON SKIN OR IN EYES. DO NOT BREATHE VAPORS OR MISTS.

UNITED STATES ARMY ENGINEER CENTER AND FORT LEONARD WOOD

FORT LEONARD WOOD, MO. 65473

FAX

USA MEDDAC
PREVENTIVE MEDICINE SVC's

INDUSTRIAL HYGIENE SECT

	AUTOVON	COMMERCIAL
HEADQUARTERS DIRECT DIAL	676-XXXX	314 563-XXXX
ALL OTHER BASE DIRECT DIAL	581-XXXX	314-596-XXXX
OPERATOR ASSISTANCE	581-0110	314-596-0121

FACSIMILE TRANSMITTAL HEADER SHEET

COMMAND	NAME OFFICE SYMBOL	TELEPHONE NUMBER	AUTHORIZED RELEASER'S SIGNATURE		
FROM: JLW CARL BARKER	HSHP-LO-IH	314-596-0864	Carl Barker		
TO: ATCOM TOM CANUPP	SATAI-A	# 263-2273	DATE-TIME 11 0845	MONTH JULY	YEAR 94
CLASSIFICATION N/A	NO. PGS 3	PRECEDENCE	REMARKS		

SPACE BELOW FOR COMMUNICATIONS CENTER USE ONLY

DA FORM 3918-R (1 Aug 72)

07. JJ. 94 07:44AM *PREV MED FLW MO P01

SATAI-A August 5, 1994

MEMORANDUM FOR RECORD

FOR SATAI-F (Gary Turner)

SUBJECT: SLAAP PCB Cleanup, Building 3

1. Per our discussion today, please initiate a work order to have the friable asbestos removed from the basement area of building 3 at SLAAP. In talking to Judy Stewart, PF&E can be tasked to do this as part of their current contract.

2. Also, initiate a separate work order to have Environmental & Extraction Technologies, Inc. (EET) come in and remediate the 1st floor area where PCB concentrations exceed 400 ppm (approx. 600 sq. ft.). Again, Judy suggested going thru PF&E to solicit bids. I recommend EET because I feel they have the technology and expertise to get the job done quickly and effectively at a minimal cost (ROM $14-15K). Also, Mike Bonem (EET) is willing to guarantee in writing that they will reach the 10 ppm cleanup standard required by Region VII EPA, or we will not have to pay anything. (This caveat should be placed in the solicitation.)

H. Moglia

Henry Moglia
Chief, Environmental Compliance
and Installation Safety

CF: Boyce Canupp
Judy Stewart

5 Aug 94

SATAI-F 5 August 1994

MEMORANDUM FOR: PF&E

SUBJECT: Building 3 Basement Asbestos Particle Removal & Building 3, Second Floor, 600 Square Foot Zone, PCB Removal.

1. Reference the enclosed memo from SATAI-A, dated 5 August 1994, subject as above.

2. A concern has been raised as to the presence of asbestos debris on the floor of the basement of building 3. Specifically the concern is walking on these pieces and the possibility of tracking such particles and/or putting fibers into the air in the basement. Request you determine the extent of such debris and prepare a work order estimate to bag and remove such material to an approved landfill.

3. Secondly in accordance with paragraph two of the referenced memo, you are requested to obtain proposals from firms, including EET, to clean the subject area to below 10 ppm PCB concentration. In preparing your RFP, contact Mr. Henry Moglia, 263-2273, for information.

Encl/as

GARY M. TURNER
Contracting Officer's
Representative

CF:
SATAI-Z
SATAS-PBA (Stewart)
SATAI-F (Woodruff)
SATAI-A (Moglia)

5 Aug 94

SATAI-A (200-1a) August 9, 1994

MEMORANDUM FOR RECORD

FOR PF&E

SUBJECT: SLAAP PCB Cleanup, Building 3

1. Reference Memorandum, SATAI-A, 5 August 1994, SAB.

2. PER my discussion with Mr. Paul Kohlberg, PF&E, the purpose of this memorandum is to define the 600 sq. ft. area, enclosure 1, where PCB concentrations exceeded 400 ppm. See area P3Z1I07, approximately columns H to J and columns 34.5 to 36. Also, see areas 15, 16, 21, 22, 27, and 28 on enclosure 2.

3. POC for this action is Mr. Boyce L. Canupp, Sr., Phone No. (314) 263-2273 or DSN: 693-2273, FAX: (314) 263-3453.

Boyce L. Canupp, Sr.

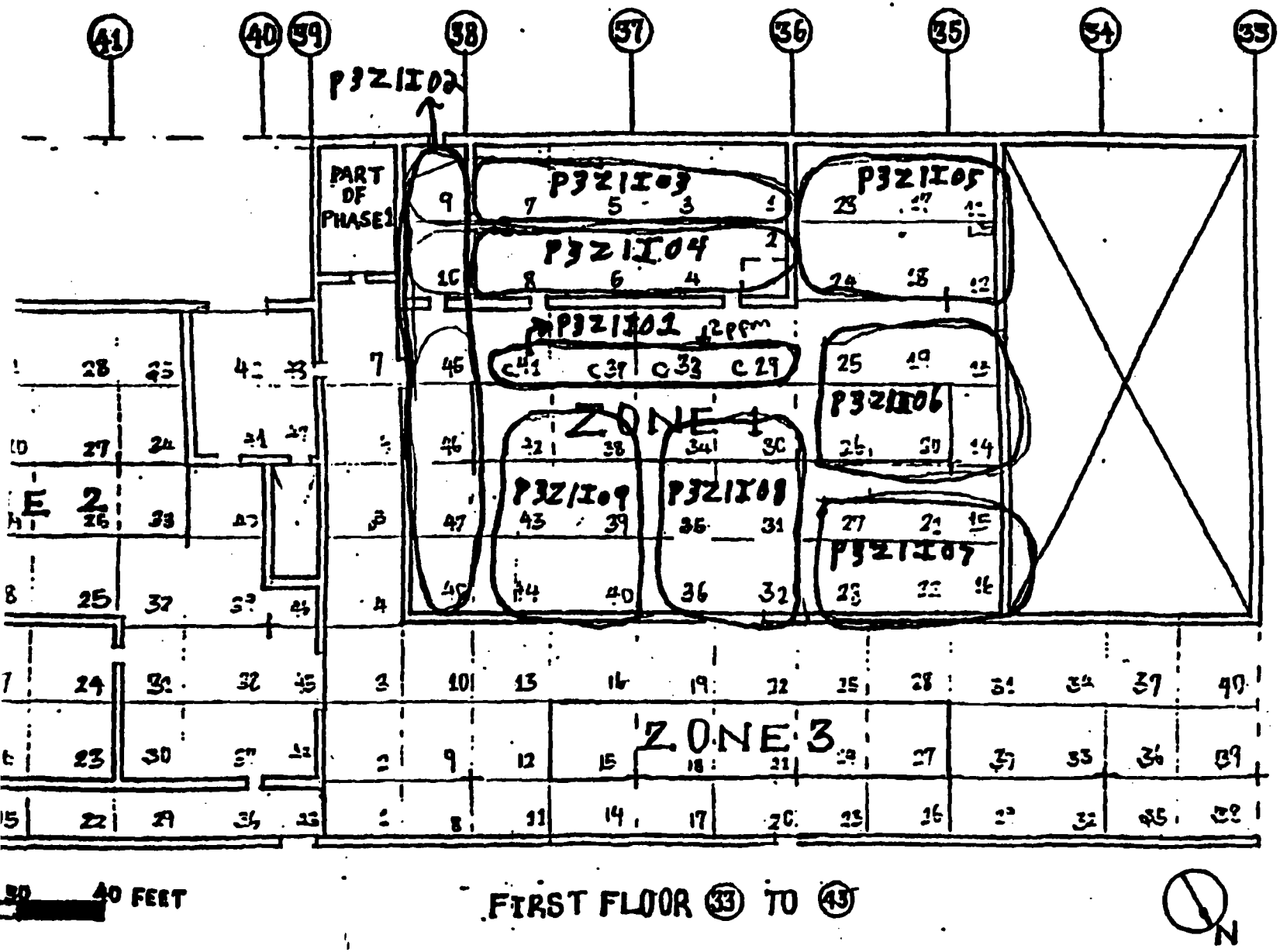
Encl

BOYCE L. CANUPP, SR.
Environmental Engineer,
Environmental Compliance and
Installation Safety Division

CF: Henry Moglia
Gary Turner
Judy Stewart

9 Aug 94

ONES. DISTRIBUTION

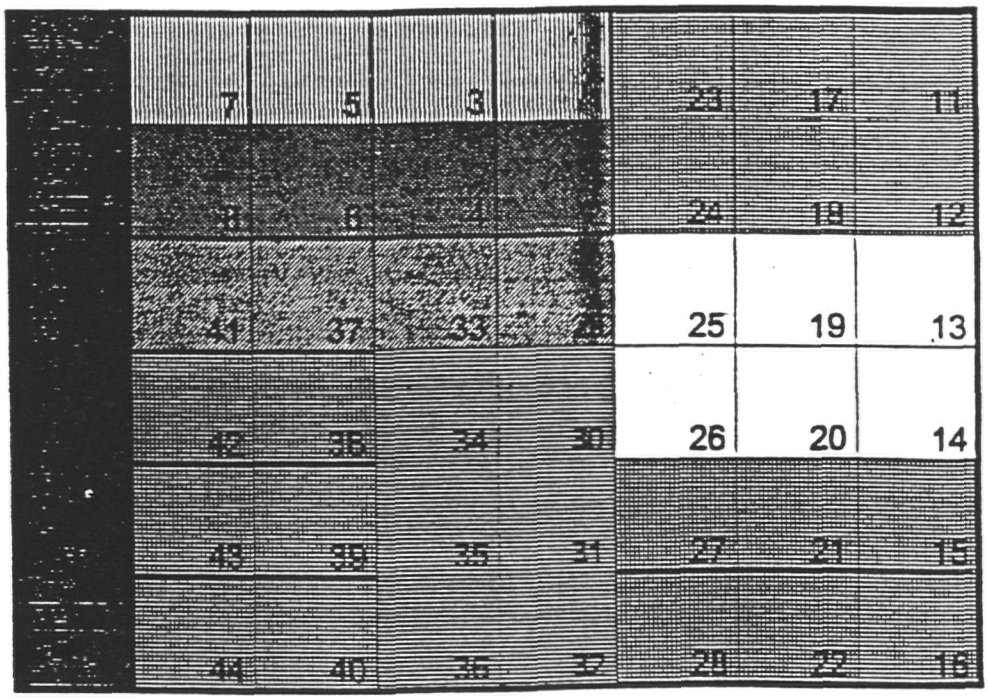


48 cores
9 composites

ENCL. 1

SLAAP BUILDING 3

PHASE 3, FLOOR ZONE 1
CONTAMINANT ISOLATION SAMPLING



	SAMPLE ID	RESULT
	P3Z1101	< 2 ppm
	P3Z1102	< 2 ppm
	P3Z1103	< 2 ppm
	P3Z1104	< 2 ppm
	P3Z1105	< 2 ppm
	P3Z1106	16 ppm
	P3Z1107	493 ppm
	P3Z1108	8 ppm
	P3Z1109	7 ppm

ENCL. 2

STATE OF MISSOURI Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

January 17, 1995

Mr. Jim Kuehnle
Department of the Army, Headquarters
U.S. Army Aviation and Troop Command
Environmental Compliance Division
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

RE: Closure Report, ESP File No. LU3878, St. Louis Army Ammunition Plant (SLAAP), 4800 Goodfellow, St. Louis, MO

Dear Mr. Kuehnle:

The purpose of this letter is to address your last submission on the Saint Louis Army Ammunition Plant to our Leaking Underground Storage Tank Unit(LUST). This is a Formerly Used Defense Site, and the Federal Facilities Section of the Missouri Department of Natural Resources(MDNR) has received approval to oversight cleanup of the subject site. Therefore, any environmental activity will now be coordinated through this section. I am the acting project manager for the site. Please note that MDNR plans to assign a permanent project manager in the near future. We will notify you when that assignment has been finalized.

Besides the concerns that our LUST Unit has with respect to the petroleum contamination at SLAAP, I have concerns about other chemical wastes that may be present on the site.

I have reviewed the J.D. Chelan report titled "Underground Storage Tank Investigation" dated February 3, 1992, and the Corrective Action Plan prepared by Applied Environmental Services, Inc. Both reports raise questions about additional contaminants that may have been encountered during the tank pulls.

Before accepting the closure report, the LUST Unit believes that continued investigation is warranted to further delineate both the vertical and horizontal extent of the contamination plume north and south of the tank pit. The LUST Unit recommends borings be placed next to the sewer line north and south of the excavation. The soil sample results collected from the east wall of the pit have to be considered suspect due to their depth in relation to the tank foundation pad and MSD sewer line. Also, additional testing may be warranted on the east side of the excavation at depths equal to that of the sewer line.

My comments on the Chelan report are referenced by page and paragraph number.

Page 2; Paragraph 1: What physical characteristics does PCB contamination exhibit? It is my understanding that PCBs can only be identified by analysis.

Page 2; Paragraph 4: Sample results for the pipe found on the north end of Gasoline Tank #105 were to be found in Attachment G. This Attachment was not included with this report. The results listed on page two match the results for the Fill Pipe. Please furnish the test results for the pipe on the north end of Tank #105.

Page 4; Paragraph 1: The liquids and the solids in Tank #101 should have been tested for VOAs and SVOAs, not just PCBs and metals. What was the disposition of the materials in Tank #101? Without confirming what the material was, how could it be properly disposed of?

Page 6; Paragraph 1: Please clarify what is meant by "purge water".

Page 6; Paragraph 5: If this tank contained solids, it should not be closed under Missouri UST Regulations.

My comments on the Corrective Action Plan are as follows.

Section 3.0; Paragraph 3: The last sentence in this paragraph eludes to the fact that other contaminants are present in the spill areas that require special handling. What evidence is there that these contaminants are unrelated to the USTs?

Have these "other contaminants" been identified? If not, they need to be, and if so, please describe.

Please provide responses to these questions and comments at your earliest convenience. If you care to discuss this letter or any other matters related to this site, feel free to call me at (314) 751-3176.

Sincerely yours,

HAZARDOUS WASTE PROGRAM

Glenn S. Golson
Environmental Specialist
Federal Facilities Section

GSG:dk

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

January 25, 1996

Mr. Lee Fuerst, Chief
Environmental Branch
U. S. Corps of Engineers
CEMRK-EP-E
700 Federal Building
601 East 12th Street
Kansas City, M0 64106

Re: St. Louis Ordnance Works

Dear Mr. Fuerst:

This letter concerns the characterization and remediation of the St. Louis Ordnance Plant, a Formerly Used Defense Site (FUDS) in St. Louis, Missouri. The site is a former government-owned, contractor-operated ordnance plant located between an industrial area (much of which was formerly part of the plant) and low-income and subsidized housing.

At this time, the Missouri Department of Natural Resources feels there are hazardous, toxic, or radioactive wastes at this site which have not been adequately addressed by the Corps. In addition, the Corps' Archival Report on this site did not accurately describe ownership. We plan to research these issues further. Based on our limited knowledge of the activities conducted at the sites, the measures previously taken during the original decommissioning may not have remediated the environmental concerns.

It is our understanding that CEMRK has no plans to proceed with any further characterization or remediation at this site. Reports from your agency indicate the Corps has no further responsibilities under the FUDS program at this site. In order to evaluate this position I am requesting a copy of the preliminary assessment, plus any other pertinent information utilized which supports your decision on this site.

As we review and evaluate all information on the St. Louis Ordnance Plant site we must remain cognizant of a much larger complex, with many issues to consider as part of the final cleanup. Much of the FUDS is now owned by private concerns. Another part is owned by Ft. Leonard Wood, which in your records is listed as the St. Louis Army Ammunition Plant. Please note, though, that Ft. Leonard Wood also describes their site as the St. Louis Ordnance Plant. The U.S. Army Aviation and Troop Command occupies another part of the complex,

and will be leaving the site under the Base Realignment and Closure Act (BRAC-95). The BRAC-95 environmental effort may potentially be complicated by the issues concerning the entire site. The former housing for the plant has been turned into low-income housing, which raises the issue of environmental justice, a concept now prominent in environmental remediation.

Many environmental issues which must be addressed will not align with the current property boundaries. As we move forward to evaluate the entire former site, the Corps, MDNR and current owners must coordinate to develop the appropriate remedial action plan. We bring this to your attention in the hope of facilitating a coordinated effort on all areas requiring additional environmental investigation or remediation.

Thank you for your attention to this matter. Please contact Kristine Davidson of my staff at (573) 751-3176, to coordinate efforts on this site, or for further information.

Sincerely,

HAZARDOUS WASTE PROGRAM

Robert Geller

Robert Geller, Chief
Federal Facilities Section

RG:lg

c: Scott Murrell, Ft. Leonard Wood
Rory McCarthy, Ft. Leonard Wood
James Kuehnle, BRAC-95 office, ATCOM
Pat Bannister, St. Louis Land Reauthorization Authority

SATAI-A (200-1a) 5 Feb 96

MEMORANDUM FOR Director, AISA (SATAI-Z)

THRU Chief, Environmental Compliance and Installation Safety Division (SATAI-A)

SUBJECT: Status of PCB Cleanup, Building 3, St. Louis Army Ammunition Plant (SLAAP)

1. Environmental and Extraction Technologies (EET) completed the clean-up of the six hundred square foot area in Building 3 on 2 Feb 96. For purposes of clean-up and testing, the six hundred square foot area was divided into six (6) one hundred square foot sectors. After cleaning, one core sample was taken from each of the sectors for laboratory analysis. The composite PCB contamination level for this area prior to clean-up was 493 ppm. The average PCB contamination level for this area is now 5.2 ppm based on certified laboratory analysis. Clean-up criteria is 10 ppm.

2. As of 5 Feb 96, EET has cleaned the site of all project related materials except for two 55 gallon drums. EET is making arrangements for the removal and disposal of the two drums containing waste cleaning fluids. EET is coordinating pick-up activities with Universal Engineering for access to the building. The drums are expected to be removed during the week of 5-9 Feb 96.

3. EET is preparing a project report that will include a brief description of the project and a compilation of the results of the laboratory analysis. The final report is expected to be submitted to the Government by 16 Feb 96.

4. Upon Government review and acceptance of the final report, this project will be considered successfully complete.

/s/ Paul L. Luedtke

Paul L. Luedtke
Environmental Engineer

CF: SATAI-F (Mr. Gary Turner)

< Feb 96

DRAFT ONLY - FOR INFORMATION

MEMORANDUM FOR RECORD 16 April 1996

SUBJECT: Status St. Louis Army Ammunition Plant (SLAAP) Report of Excess.

1. A first draft of a Report of Excess for the subject facility was prepared and submitted to AMC, Headquarters on 6 October 1992.

2. Subsequent to that transmission revisions were required and a Preliminary Assessment Screening (PAS) as well. A PAS was conducted by the U.S. Army Environmental Hygiene Agency at SLAAP during the period of 11-15 January 1993 and issued a report dated 1993.

3. Based upon that report an Environmental Assessment for SLAAP was determined necessary. SATAI-A, Nancy Vellof prepared an EA draft. This draft could not completed until an environmental testing of Building 3 Basement was conducted and the PCB cleanup contract of building 3 was complete.

4. Testing of the basement is now complete, PCB cleanup contract completed, cleanup of a 600 square feet section of floor of building 3 which had a high PCB concentration has been successfully completed, and underground storage tanks have been removed. A Health Based Risk Assessment of Building 3 is essentially complete and a review and meeting with EPA on this assessment remains to be conducted. The purpose of this meeting will be to request EPA to remove the existing Notice of Noncompliance. Upon the completion of this process the Environmental Assessment can be completed and attached to the revised Report of Excess that needs to be prepared.

5. At that point the ROE can be resubmitted to AMC. Estimate completion of same by August 1996.

GARY M.TURNER
Chief, Engineering, Housing &
Installation Logistics, AISA

DRAFT ONLY - FOR INFORMATION

MEMORANDUM FOR RECORD 16 April 1996

SUBJECT: Status St. Louis Army Ammunition Plant (SLAAP) Report of Excess.

1. A first draft of a Report of Excess for the subject facility was prepared and submitted to AMC, Headquarters on 6 October 1992.

2. Subsequent to that transmission revisions were required and a Preliminary Assessment Screening (PAS) as well. A PAS was conducted by the U.S. Army Environmental Hygiene Agency at SLAAP ~~during the period~~ of 11-~~17~~ January 1993 and issued a report dated ~~[illegible]~~ 1993.

3. Based upon that report an Environmental Assessment for SLAAP was determined necessary. SATAI-A, Nancy Vellof prepared an EA draft. This draft could not completed until an environmental testing of Building 3 Basement was conducted and the PCB cleanup contract of building 3 was complete.

4. Testing of the basement is now complete, PCB cleanup contract completed, cleanup of a 600 square feet section of floor of building 3 which had a high PCB concentration has been successfully completed, and underground storage tanks have been removed. A Health Based Risk Assessment of Building 3 is essentially complete and a review and meeting with EPA on this assessment remains to be conducted. The purpose of this meeting will be to request EPA to remove the existing Notice of Noncompliance. Upon the completion of this process the Environmental Assessment can be completed and attached to the revised Report of Excess that needs to be prepared.

5. At that point the ROE can be resubmitted to AMC. Estimate completion of same by August 1996.

GARY M.TURNER
Chief, Engineering, Housing &
Installation Logistics, AISA

DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY AVIATION AND TROOP COMMAND
4300 GOODFELLOW BOULEVARD, ST. LOUIS, MO 63120-1798

REPLY TO
ATTENTION OF

Environmental Compliance and
Installation Safety Division

24 JUN 1998

SUBJECT: Polychlorinated Biphenyl (PCB) Decontamination Project, St. Louis Army Ammunition Plant (SLAAP)

Mr. David A. Phillippi
Toxic Substances and Control Section
United States Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Dear Mr. Phillippi:

Per our previous phone conversations, enclosed for your review are two (2) copies of the Woodward-Clyde Health-Based Risk Assessment for Building No. 3 at SLAAP. Please forward a copy to the Agency for Toxic Substances and Disease Registry (ATSDR).

We trust this completes the requirements for the subject PCB remediation project and look forward to the lifting of the Notice of Noncompliance , TSCA Docket Number VII-91-T-304, issued by your office Feb 20, 1991.

If you feel a meeting is required, we would be happy to discuss the project in detail, preferably some time in July.

If you have any questions, please contact either Mr. Henry Moglia at (314) 263-8127 or Mr. Gary Turner at (314) 263-2114. We look forward to hearing from you.

Sincerely,

Larry E. Wright
Director, Administration and
Installation Support Activity

Enclosures

24 Jun 98

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▸ 7

To: H. Moglia — From: D. Phillippi

Dept./Agency — Phone #: 913/551-7395

Fax #: — Fax #:

NSN 7540-01-317-7368 — 5099-101 — GENERAL SERVICES ADMINISTRATION

DO NOT CITE OR QUOTE***

ATSDR Record of Activity

UID #:TYM4 Date:8-15-96 Time:1:00 am _ pm X

Site Name:Army Ammunition Plant, Building No.3 City:St.Louis Cnty:___ State:MO

CERCLIS #:_____ Cost Recovery #: 7#MO Region:7

Site Status (1) _ NPL x Non-NPL _ RCRA _ Non-Site specific _ Federal
(2) _ Emergency Response _ Remedial _ Removal x Other

Activities

_ Incoming Call _ Public Meeting x Health Consult _ Site Visit
_ Outgoing Call _ Other Meeting _ Health Referral x Info Provided
_ Conference Call _ Data Review _ Written Response _ Training
_ Incoming Mail _ Other:

Requestor and Affiliation: (2) EPA Region 7
Phone: (913)551-5067
Address:
City: Kansas City State:MO Zip Code:

Contacts and Affiliation

(1)David Parker, Region 7 Rep. ( )
( ) ( )

1=ATSDR 2=EPA 3=Other Fed 4=State Health 5=State Environment
6=Local Health 7=Elected Official 8=Private Co 9=Private Citizen
10=News Media 11=Citizen Group 12=USCG 13=Natl Respns Cntr 14=Other

Program Areas

_ Health Assessment _ Health Studies _ Tox Info-profile _ Worker Hlth
_ Petition Assessment _ Health Surveillnc _ Tox Info-Nonprofil _ Admin
_ Emergency Response _ Disease Regstry _ Subst-Spec Resch _ Other
x Health Consultation _ Exposr Regstry _ Health Education

Narrative Summary:

EPA Region 7 requested that ATSDR evaluate/review the Health-Based Risk Assessment for Building No. 3 of the Army Ammunition Plant site [1]. The objectives of the risk assessment are to evaluate the potential health risks posed by the current contamination of the building and to evaluate the need for further remedial activities. Polychlorinated biphenyls (PCBs) (basement, first and second levels of Building No. 3) and pesticides (only the basement of Building No. 3) were the contaminants of concern in this risk assessment. The contaminants of concern are located on and in interior surfaces such as walls, floors and ceilings. Asbestos is known to be present in Building No. 3, but the potential health risks of asbestos exposure were not addressed in this risk assessment.

Building No. 3 is part of a large government complex located in St. Louis,

MO. The complex is located between Riverview Boulevard and Goodfellow Boulevard, adjacent to Interstate Highway 70. Most of the land use surrounding the complex is commercial and access to the facility is restricted through security measures including a manned entrance gate and fencing. Cutting oil containing PCBs was historically used in the upper levels of this building. Other contaminants used or stored in the basement of this building include pesticides and urea.

Currently, Building No. 3 is vacant except for a few office areas on the first and second levels used by Aviation Troop Command (ATCOM) and the Veterans Administration (VA). These office areas have been fitted with suspended ceiling tiles, wall coverings, and carpeting or other floor covers, and the contaminated interior surfaces are not available for direct contact. Access to the basement is controlled, and the windows are sealed. The potential future use of Building No. 3 will likely remain similar to that for which it has been used in the recent past, i.e., for administrative and storage use.

From September 1991 through August 1994 wipe, soil, and core (concrete) samples were collected from the basement, first level, and second level of Building No. 3. Samples collected from the basement were analyzed for PCBs, pesticides (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, endrin, gamma-BHC, heptachlor epoxide), and ammonia (a surrogate for urea). Samples collected from the first and second levels of Building No. 3 were analyzed for PCBs only. In addition, eight indoor air samples were collected in May 1992 from Building No. 3.

Building No. 3 Basement Sampling

Media sampled in the basement included soil and wipe samples of various surfaces including the floor, walls and other vertical surfaces, and the ceiling. Eight soil samples were collected from the floor of the basement. PCBs were not detected in any of the soil samples. ((However, the floor around an area in the basement known as the chip chute and known to be contaminated with high levels of PCBs was not sampled. One ceiling and three vertical core samples were collected from the chip chute area and the levels of PCBs ranged from none detected to 730 ppm (page 9-1 of [1])). Four pesticides were detected in the soil samples: 4,4'-DDD ranged from 0.11 to 6.6 ppm in five samples; 4,4'-DDT ranged from 0.05 to 1.0 ppm in six samples; endrin ranged from 0.2 to 2.0 ppm in four samples; and gamma-BHC 0.38 to 1.0 ppm in four samples.

Fifteen floor wipe samples were collected. PCBs, 4,4'-DDD, 4,4'-DDT, dieldrin, endrin, gamma-BHC, and heptachlor epoxide were detected (See Attachment 1, Analytical Wipe Data). PCBs were detected in seven samples. Six samples exceeded EPA's PCB Spill Cleanup Policy Standard for surfaces of 10 ug/100 cm^2 and were reported at 17.6, 19.4, 20.0, 45.4, 88.8, and 126.8 ug/100 cm^2.

Twenty vertical wipe samples were collected from vertical basement surfaces, which included walls and columns. PCBs were detected in five samples, three of which exceeded the standard of 10 ug/100 cm^2; 4,4'-DDD and 4,4'-DDT were detected in 19 samples; beta-BHC was detected in two samples; endrin aldehyde was detected in one sample; gamma-BHC was detected in 13 samples; NS

Heptachlor epoxide was detected in four samples (See Attachment 1 for Analytical Vertical Wipe Sample Results).

Fourteen horizontal beam wipe samples were collected from the top surface of the bottom flange of the horizontal steel beams in the basement. PCBs were detected in 5 of the 14 samples with the following levels detected: 10.6, 37.9, 58.2, 92.2, and 209.9 ug/100 cm^2. Pesticides were detected in all of the wipe samples analyzed (See Attachment 1 for Horizontal Beam Wipe Analytical Results).

Nine ceiling wipe samples were collected. PCBs were detected in one sample at 17.6 ug/100 cm^2 and pesticides were detected in 8 of the wipe samples (See Attachment 1 for Ceiling Wipe Sample Analytical Results).

First and Second Levels of Building No. 3

Sampling of the first and second floors of Building No. 3 was conducted in seven phases: Phase 1 through Phase 7. The only contaminants analyzed for were PCBs. A total of 164 floor core samples were collected from the first and second level of Building No. 3. One hundred and seven core samples were collected from the first floor and 57 were collected from the second level. PCBs were detected in 70 of the 164 floor samples (53 on the first level and 17 on the second level). Detected PCB concentrations from the core samples ranged from 2 ppm to 60 ppm on the first level (27 exceeding the standard 10 ug/ 100 cm^2) and from 2 ppm to 32 ppm on the second level (9 exceeding the standard of 10 ug/100 cm^2).

A total of 418 ceiling samples were collected from the first and second levels: 181 wipe samples and 69 core samples were collected from the second level. Of the 111 core samples, 4 samples had detected levels of PCBs below 10 ppm. Of the 307 ceiling wipe samples, 146 had detected concentrations of PCBs: 92 on the first level and 53 on the second level. PCB concentrations on the first level ranged from 1.1 ug/ 100 cm^2 to 111 ug/100 cm^2 (34 exceeding 10 ug/100 cm^2) and on the second floor ranged from 1.2 ug/100 cm^2 to 108 ug/100 cm^2 (17 exceeding 10 ug/100 cm^2).

A total of 284 wipe samples were collected from vertical surfaces of the fist and second level, which include columns, walls, doors, electrical panels, and windows. Sixty three wipe samples and 112 core samples were collected from the first level, and 52 wipe and 57 core samples were collected from the second level. PCBs were detected in 3 wipe samples on the first level (all less than 10 ug/100 cm^2), 8 core samples on the first level (two exceeding 10 ppm, with levels at 31 and 730 ppm) and 1 wipe sample on the second level detecting PCBs at 5.5 ug/ 100 cm^2.

Air Sampling

Eight air samples were collected for analysis of PCBs at locations throughout Building No. 3 in May 1992. The levels of PCBs detected in the eight air samples ranged from 0.7 to 0.8 ug/m^3. The air samples were not analyzed for pesticides.

Asbestos was identified in Building No. 3 but the health risk associated with exposure to it was not considered in this risk assessment nor was any

asbestos sampling conducted.

Risk Assessment

The risk assessment evaluated the basement, first level, and second level separately. Risk exposure parameters considered for workers: 5 days per week 50 weeks per year for 25 years. Routes of exposure considered: inhalation, dermal, and ingestion. Air and volatilization modeling data were used to predict health risk. In addition, statistical averaging of the levels of contaminants present in Building No. 3 was also used in this risk assessment. The use of statistical averaging of site contaminants may not be appropriate to evaluate public health concern. Several other factors such as, invalidated data (page 3-2 of [1]), limited and dated (May 1992) air data and no air data for asbestos, and limited data collected in the basement chip chute area (an area known to be contaminated with high levels of PCBs) may not allow the modeling conducted for this risk assessment to be representative of true conditions and current levels of contamination present. The modeling conducted may not represent current conditions in Building No. 3 and therefore, may not be appropriate to evaluate public health concerns.

The risk assessment [1] concluded that there is no unacceptable health impact posed by contamination in the interior of Building No. 3 and further remediation of Building No. 3 interior is not indicated. See Attachment 2: Risk Assessment Parameters, Volatilization Modeling Parameters, and Estimation of Exposure Point Concentrations.

Discussion/Conclusions

Varying levels of PCB and pesticide contamination (basement only) inside the building were detected in soil, surface wipe and core samples. PCB levels exceed EPA's PCB spill cleanup policy in soils and surfaces throughout Building No. 3 [2] and may represent a potential longterm health threat to workers from direct contact exposures.

The Toxic Substance Control Act (TSCA) provides a PCB spill cleanup policy and recommends cleanup levels of PCBs on building surfaces [2]. On low-contact surfaces in commercial/residential areas, a level of 100 ug/100 cm^2 is recommended; for high contact surfaces, a level of 10 ug/100 cm^2 is recommended. These recommendations are for long-term exposures and were derived from a theoretical exposure model that incorporated some poorly-characterized assumptions (such as surface area contacted and the quantity of PCBs transferred from the surface to the skin). Nevertheless, the recommended values provide a conservative guideline for assessing the risk posed by dermal contact with PCB-contaminated surfaces.

Pesticides detected in the soil samples collected in the basement of Building No. 3 do not represent a health threat. It is not possible to quantitatively evaluate public health threats due to exposure to pesticides on surfaces (walls, ceilings, etc.) due to unknowns such as contact rates between skin and the surface, transfer rates from surface to skin, absorption rates through the skin, etc.

The levels of PCBs detected in the air samples (0.7 to 0.8 ug/m^3) do not

represent a health threat. The OSHA workplace exposure limits for PCBs are: legal airborne permissible exposure limit (PEL) is 1 mg/m^3 (42% chlorine) and 0.5 mg/m^3 (54% chlorine) averaged over an 8-hour workshift.

Action Required/Recommendations/Info Provided:

Based on the information provided, ATSDR:

1. Consider covering and/or cleaning surfaces that exceed EPA's criteria for PCB contamination of 10 ug/ 100 cm^2 for high-contact surfaces.

2. Before Building No. 3 is opened to workers, ATSDR recommends air sampling to determine current levels of PCB and pesticide contamination. In addition, the air sampling should also include asbestos monitoring (asbestos is known to be present in Building 3, but was not included in this risk assessment).

3. Based on the limited air data (no analysis for pesticides in the basement), limited sampling in the chip chute basement area, exclusion of asbestos air sampling, the frequency of PCB contamination greater than 10 ug/ 100 cm^2, and the use of wipe and core samples, ATSDR believes the risk assessment may not be representative of current conditions in Building No. 3.

Signature: _____ Date: _____

Concurrence: _____ Date: _____

Enclosures: Yes ( ) No (x); MIS entered: Yes ( ) No ( )

cc: EICB File
Ed Skowronski
David Parker, ATSDR Region 7 Representative
PERIS

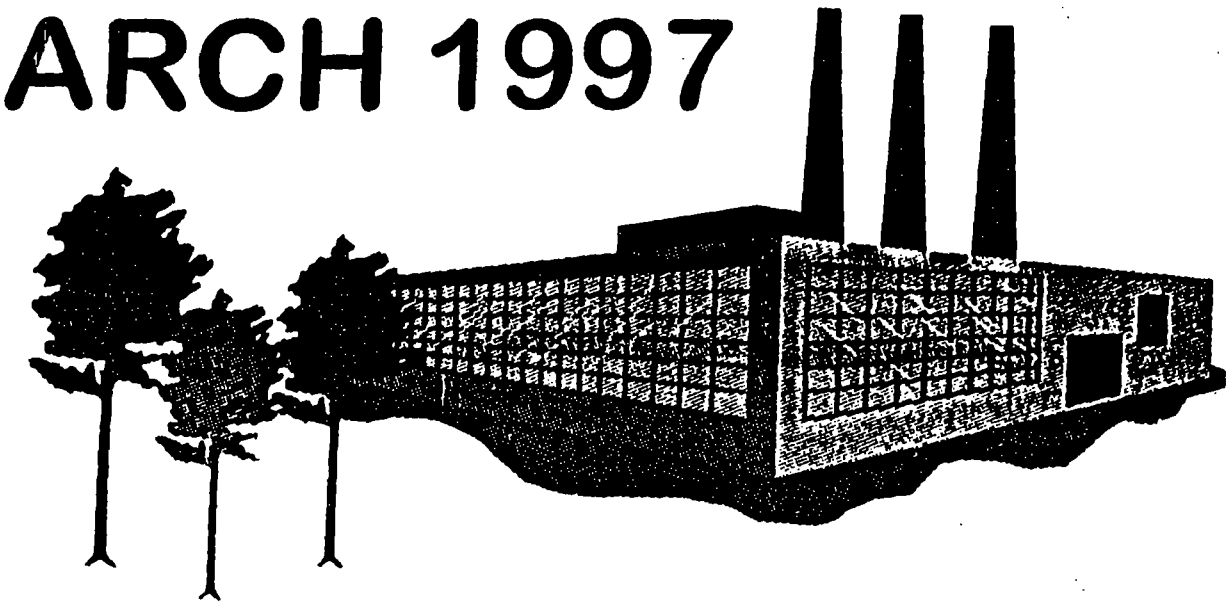
References:

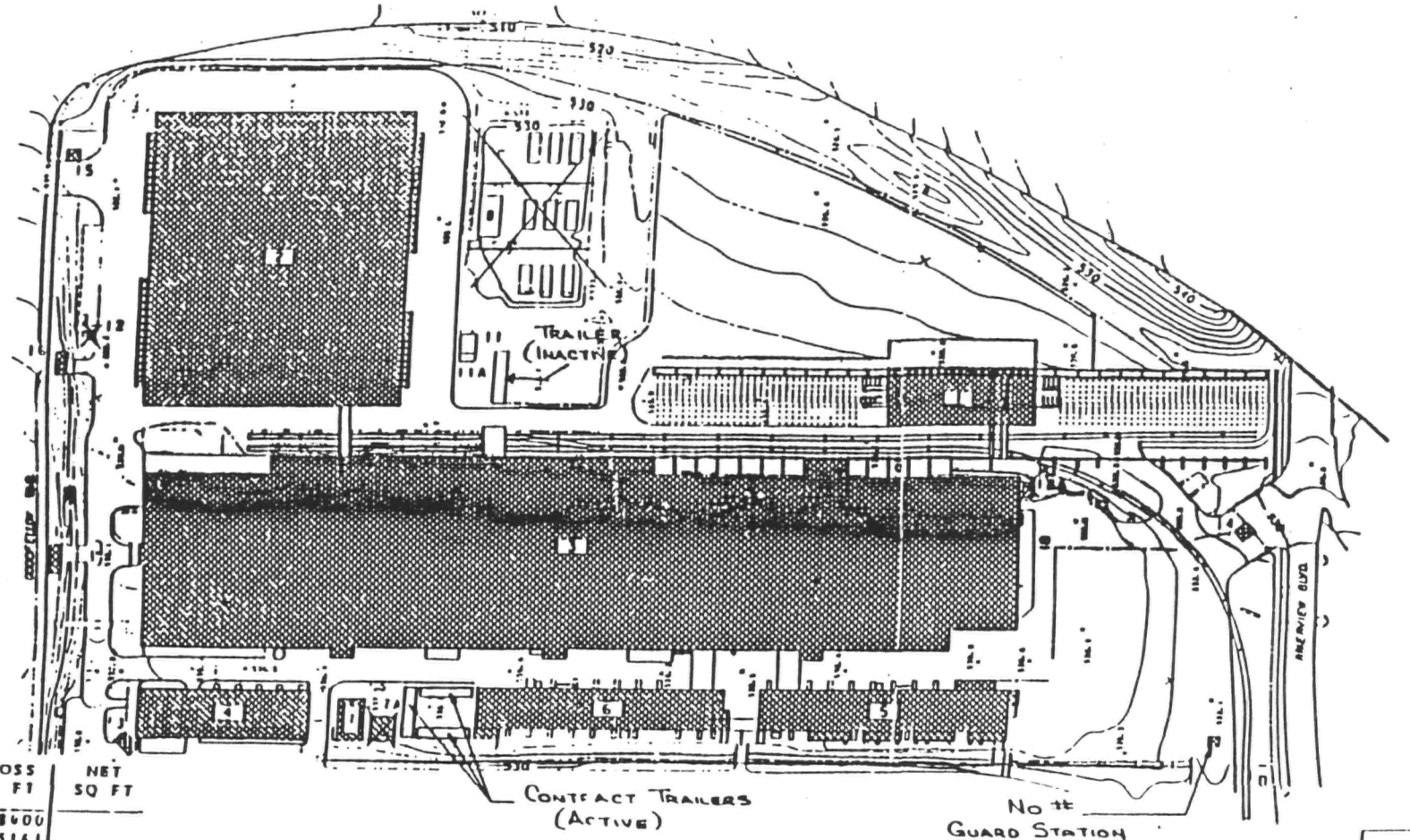
1. Health Based Risk Assessment, Building #3, Army Ammunition Plant, St. Louis, Missouri. June 1996. Prepared for World Wide Terminal Services and U.S. Army Aviation Systems Command.

2. U.S. Environmental Protection Agency; Polychlorinated Biphenyl Spill Cleanup Policy; Federal Register Vol. 52, No. 63, april 2, 1987.

ST. LOUIS ARMY AMMUNITION PLANT 4800 GOODFELLOW BLVD. ST. LOUIS, MISSOURI

MARCH 1997





LEGEND

BUILDING PERMANENT

BUILDING SEMI-PERMANENT

BUILDING TEMPORARY

INSTALLATION BOUNDARY FENCE

RAILROAD

INDEX CONTOUR 520

INTERMEDIATE CONTOUR

SCALE IN FEET

GROSS SQ FT	NET SQ FT
8400	
75161	
52451	
50957	
8000	
10465	7861
10076	6954
9214	7695
10076	6924

le Parking = 535 Spaces

r Room 3-2 Post G-K, 26-28
Net SQ FT = 2421

DRAWINGS IN THIS FOLIO HAVE BEEN REDUCED TO ONE HALF THE ORIGINAL SCALE

ST. LOUIS AAP

GENERAL SITE MAP

ST. LOUIS ARMY AMMUNITION PLANT (SLAAP)

0 ACRES 21

0 PRIMARY BUILDINGS 6

0 NET SPACE:

OFFICE	94,829 SQ FT
STORAGE	240,123 SQ FT
COMPUTER	2,513 SQ FT
TOTAL:	337,465 SQ FT

0 USE:

1985-1997 CURRENT: 500-600 ATCOM PERSONNEL, TRAINING, TRANSITION ASSISTANCE OFFICE, ARMY AUDIT AGENCY, ATCOM BOARDS, AND TEAMS

0 ENVIRONMENTAL: NOTICE OF NONCOMPLIANCE EPA JANUARY 1991- POLYCHLORINATED BIPHENYL (PCB) UNRESOLVED

ST. LOUIS ARMY AMMUNITION PLANT (SLAAP)

0	OPERATION EXPENSES	FY 96 $590.5K FACILITIES MAINTENANCE, UTILITIES AND ADMINISTRATION
0	FUTURE OF SLAAP	UNDER BRAC WILL BE TRANSFERRED TO MELVIN PRICE SUPPORT CENTER UNDER AMCOM (MSC)

SATAS-F 1 July, 1997

MEMORANDUM FOR SATAI-Z

SUBJECT: PCB Issues at St. Louis Army Ammunition Plant (SLAAP)

1. Reference meeting 26 June 1997, with Region VII EPA, subject as above. Henry Moglia of your environmental staff attended the meeting. The purpose of this memo is to brief you on the several actions which need to be initiated in order for the resolution of the PCB Notice of Noncompliance to proceed.

2. It is my understanding that the administration of SLAAP has not yet been assumed by the Redstone Arsenal Support Activity (RASA) and still remains within your office.

3. The following actions should be initiated to keep the project active.

a. An air sampling protocol should be developed for final testing of the 1st and 2nd floors of SLAAP and sent to Region VII for approval. RASA may have to be consulted to determine who should do this.

b. An engineering scope of work should be developed to design an encapsulation of the chip chute. Soil disposal would be involved with any construction in the basement. This project may require meetings with Region VII EPA keep them involved, since they would ultimately have to approve the project.

c. Copies of the basement sampling plan and the follow up health risk assessment should be sent to the appropriate Army agency for review and comment. The EPA already has reviewed our reports and has provided comments to Henry. RASA again may have to be consulted for guidance.

4. This office can provide limited assistance, but does not have the manpower or resources to assume the entire project.

5. The point of contact for this action is the undersigned.

Jim Kuehnle
Chief, Public Works Division

CF: SATAI-A, Henry Moglia
AMSMI-RA-EMP, Jerry Hubbard

7/1/97

DEPARTMENT OF THE ARMY
ADMINISTRATIVE AND INSTALLATION SUPPORT ACTIVITY (ATCOM)
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120-1798

REPLY TO
ATTENTION OF

07 AUG 1997

SATAI-A
Environmental Compliance and Installation Safety Division

Mr. David A. Phillippi
Toxic Substances and Control Section
U. S. Environmental Protection Agency (EPA)
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Dear Mr. Phillippi:

Thank you for meeting with Mr. Jim Kuehnle and me on June 26 to discuss the Notice of Noncompliance (NON) for polychlorinated biphenyls (PCBs) at St. Louis Army Ammunition Plant (SLAAP).

As discussed during the meeting, it is our intent to resolve the NON as quickly as possible so we can proceed with the transfer of property from Army records.

Based upon our discussions, we agreed to the following for building no. 3 at SLAAP:

a. Paint the walls and ceilings of the first and second floors; cap the floors with concrete. Upon project completion, ambient air samples will be taken to measure PCB levels. The sampling protocol will be submitted to Region VII in advance for approval.

b. Physically isolate the chip chute area by constructing a wall in the basement area. The design will be submitted to Region VII in advance for review.

c. The sampling plan and health risk assessment performed in the basement will be reviewed by the appropriate Army agency. Upon completion of the review, a meeting with Region VII will be scheduled to discuss the need, if any, for future action.

7 Aug 97

If you have any questions or comments concerning our approach, please feel free to contact either Mr. Henry Moglia at (314) 263-8127 or Mr. Jim Kuehnle at (618) 452-4233.

Sincerely,

H. Moglia

Henry J. Moglia
Chief, Environmental Compliance
and Installation Safety

Copy Furnished: AMCEN-A, Ms. Lisa Botluk
AMSI-RA-EMP, Mr. Mike Hubbard
SATAS-F, Mr. Jim Kuehnle

WHITT WALKER

BACKGROUND:

a. The St. Louis Army Ammunition Plant (SLAAP) produced 105mm M1 High Explosive Projectile Metal Parts (no explosive processing) from 1945 to 1969. Manufacturing facilities included forging and metal turning equipment. In 1969, SLAAP was no longer required to actively manufacture projectile metal parts and was placed in a layaway status. All equipment was maintained in a functional standby condition. In 1988, the Army determined that SLAAP's manufacturing capability was no longer required for mobilization of forces and Plant clearance began. Industrial equipment and facilities were removed.

b. Building No. 3 was used to roughturn and finish metal projectile parts. The building is a two-story, 300,000 square foot structure. Roughturning operations were conducted on the second floor and finishing was done on the first floor. Nearly two thirds of the more than 600 pieces of equipment once used in the building were associated with the finishing operations located on the first floor.

c. Both roughturn and finishing equipment utilized oil cooling systems in their turning operations. Cutting oils with PCBs exhibited excellent heat transfer qualities and were historically used extensively in similiar industrial applications. The specific cutting oil utilized at SLAAP is not known at this time. An informed, unconfirmed estimate by Plant personnel of the PCB content in the cutting oil is between 50 to 150 ppm. The wooden block flooring on the first floor in particular was exposed to the cutting oil thru spray and spillage.

d. AVSCOM is currently renovating parts of Building 3 for administrative space (approximately 25,000 square feet on the second floor) and temporary file storage (approximately 80,000 square feet on the first floor). The temporary file storage is for archived Veterans Administration files and will be required for 12-18 months while Building 104, Federal Center, 4300 Goodfellow Boulevard, is being renovated. This $10 million renovation project has been planned and designed for the last several years and is now eligible for funding. Construction is planned for the end of May, 1990.

WOOD BLOCKS: A sample of wooden block has been sent for analysis. As discussed, only a portion of the block has been sampled. The block appeared representative of the majority of blocks. As the results of the analysis become available, they will be forwarded.

CONCRETE FLOORING: As the wooden block and underlying asphaltic mastic are removed, the concrete subfloor will be checked to determine PCB content. Samples have been taken to assess PCB content of the concrete on the second floor. Results will be forwarded as soon as possible.

DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY AVIATION SYSTEMS COMMAND
4300 GOODFELLOW BOULEVARD, ST. LOUIS, MO 63120-1798

REPLY TO
ATTENTION OF

April 24, 1990

Engineering and Housing
Division

SUBJECT: St. Louis Army Ammunition Plant (SLAAP) PCB Contamination

Mr. R. Jackson
Chief, Toxic Substance Control Section
U.S. Environmental Protection Agency
Region 7
726 Minnesota Avenue
Kansas City, Kansas 66101

Dear Mr. Jackson:

As discussed telephonically on April 6, 1990 with Mr. Doug Elders, your Agency, the following information is provided.

From March 15-19, 1990, Browning Ferris, Inc. (BFI) removed demolition debris from renovation operations at the St. Louis Army Ammunition Plant (SLAAP), 4800 Goodfellow Boulevard, St. Louis, Missouri. Approximately 150 yards of creosote treated wooden blocks (2 inches x 4 inches x 6 inches) were taken to BFI's Maryland Heights Facility as sanitary waste.

On April 3, 1990, the General Services Administration (GSA), acting as the Army's general contractor, was told the wooden blocks had been exposed during previous years to cutting oil that contained a polychlorinated biphenyl compound (PCB). The GSA analyzed samples of the asphaltic mastic that held the blocks to the first floor concrete flooring and confirmed the presence of PCBs. Four random samples were analyzed and the gross PCB contents in parts per million (ppm) as AROCLOR 1248 were: 82, 103, 134, and 288. On behalf of the Aviation Systems Command (AVSCOM), we notified the Missouri Department of Natural Resources (MoDNR) and contacted EPA TSCA Headquarters for guidance. Referral was made to EPA, Region 7.

On April 6, 1990, AVSCOM apprised EPA, Region 7, of the situation. Mr. Doug Elders, Toxics and Pesticides Division, provided guidance on handling the PCB contamination at our Facility. Mr. Elders indicated specific information would be required:

a. Provision of background information on facility and situation.

b. Determination of the PCB content in the wood blocks.

c. Assessment of the PCB content in the concrete flooring.

d. A plan of action.

SHORT TERM PLAN OF ACTION (18 MONTHS):

a. The temporary file storage area of 80,000 square feet has already been enclosed by a fence erected for this project.

b. Area outside the fenced storage area on the first floor will be cordoned off to prevent casual, passerby traffic.

c. Concrete and wood block test samples, as stated above, have been taken.

d. Plastic and structural fiber masonite will be placed on the concrete subfloor where exposed and on wood blocks still in place on the first floor prior to use as temporary file storage. This effort will protect the few personnel that will be servicing these files.

LONG TERM PLAN OF ACTION (After 18 Months and Prior to Any Subsequent Use):

a. Remove masonite, plastic, and wood blocks on first floor and dispose of in accordance with regulation.

b. Remove mastic on first floor by blasting and dispose of in accordance with regulation.

c. Sample and analyze concrete subfloor before permanent flooring is installed.

We will proceed as soon as possible with the application of plastic and masonite since the bid opening and construction start for the Building 104 Renovation is imminent.

Point of contact is Mr. Gary M. Turner or Mr. Alan D. Gibson, 314-263-2273.

Sincerely,

Larry E. Wright
Director, Administrative and
Installation Support Activity

Copies Furnished:

Colonel G. Starr (SAVSC-G)
Mr. R. Jensen (AMSAV-JR)
Mr. D. O'Boyle (AMSAV-Z)
Mr. M. Humphreys (SMCSL-CR)
Mr. J. Darr (Plant F&E, Inc.)
Mr. K. Phillips (GSA, KC, MO)
Mr. G. East (GSA, KC, MO)
Mr. E. Kordick (GSA, STL, MO)
Mr. Skip Grewe (BFI)

SHORT TERM PLAN OF ACTION (18 MONTHS):

a. The temporary file storage area of 80,000 square feet has already been enclosed by a fence erected for this project.

b. Area outside the fenced storage area on the first floor will be cordoned off to prevent casual, passerby traffic.

c. Concrete and wood block test samples, as stated above, have been taken.

d. Plastic and structural fiber masonite will be placed on the concrete subfloor where exposed and on wood blocks still in place on the first floor prior to use as temporary file storage. This effort will protect the few personnel that will be servicing these files.

LONG TERM PLAN OF ACTION (After 18 Months and Prior to Any Subsequent Use):

a. Remove masonite, plastic, and wood blocks on first floor and dispose of in accordance with regulation.

b. Remove mastic on first floor by blasting and dispose of in accordance with regulation.

c. Sample and analyze concrete subfloor before permanent flooring is installed.

We will proceed as soon as possible with the application of plastic and masonite since the bid opening and construction start for the Building 104 Renovation is imminent.

Point of contact is Mr. Gary M. Turner or Mr. Alan D. Gibson, 314-263-2273.

MR. GIBSON/mb/

Sincerely,

MR. TURNER

Larry E. Wright
Director, Administrative and
Installation Support Activity

MR. WRIGHT

Copies Furnished:

Colonel G. Starr (SAVSC-C)
Mr. R. Jensen (AMSAV-JR)
Mr. D. O'Boyle (AMSAV-Z)
Mr. M. Humphreys (SMCSL-CR)
Mr. J. Darr (Plant F&E, Inc.)
Mr. K. Phillips (GSA, KC, MO)
Mr. G. East (GSA, KC, MO)
Mr. E. Kordick (GSA, STL, MO)
Mr. Skip Crewe (BFI)

COORDINATION:

CONCUR DATE
AVSCOM Legal Office

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

MAY 09 1990

Larry E. Wright, Director
Administrative and Installation Support Activity
Engineering and Housing Division
Department of the Army
U.S. Army Aviation Systems Command
4300 Goodfellow Boulevard
St. Louis, Missouri 63120-1798

Dear Mr. Wright:

This letter is in response to your April 24, 1990, letter concerning Polychlorinated Biphenyl (PCB) contamination at the St. Louis Army Ammunition Plant (SLAAP). You indicate that although PCB contamination exists at the SLAAP, renovation construction is scheduled to begin in May 1990. You indicate that areas with known PCB contamination are to be used as file storage areas after application of plastic and Masonite covering on the floors. EPA is concerned about such use of contaminated areas and also questions whether other areas of the building have been contaminated by trafficking through the contaminated areas.

EPA recommends the building not be used for office space until PCBs are removed in accordance with cleanup levels stated in the PCB spill cleanup policy. Office areas including file storage should be cleaned to 10 parts per million (ppm) PCBs or less for porous surfaces (ie. wood, concrete), and 10 $\mu g/100\ cm^2$ for non-porous surfaces (ie. metals). Any portions of the building which may have been contaminated by trafficking through contaminated areas should be sampled and cleaned appropriately prior to future use.

Your letter does not include information concerning the disposition of the equipment which was a source for the PCB contamination. If the equipment is still at the facility you should take immediate steps to confirm compliance with the requirements of 40 C.F.R. Part 761.

This letter provides you a summary of EPA's concerns for potential exposure to human health and the environment at the subject facility. If you or your staff need specific guidance concerning remediation activities, contact Mr. Doug Elders of my staff at (913) 551-7020 or FTS 276-7020. Please keep this office apprised of your progress during remediation.

Sincerely,

Robert W. Jackson, Chief
Toxic Substances Control Section

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

P.O. Box 176
Jefferson City, MO 65102

January 15, 1991

Mr. Alan Gibson
U.S. Army Aviation Systems Command
4300 Goodfellow Boulevard
St. Louis, MO 63120

Dear Mr. Gibson:

In regard to our inspection of your facility on January 2, 1991, enclosed are copies of the reports of analysis for Sample Nos. 91-4700 through 91-4716. The results indicate regulated levels of PCBs in the samples. The results of the inspection have been submitted to EPA Region VII.

Please direct any inquires concerning your responsibilities under 40 CFR Part 761 to the Toxic Substance Control staff, Environmental Protection Agency, 726 Minnesota Avenue, Kansas City, Kansas 66101, or telephone (913) 551-7020.

Thank you for your time and cooperation.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY

Lyle O. Crocker, Chief
Transportation/PCB Unit
Waste Management Program

LOC:bkd

Enclosure

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4700

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
CONTROL SWAB

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 0.50 ug/100cm2
PCB-1221	< 0.50 ug/100cm2
PCB-1232	< 0.50 ug/100cm2
PCB-1242	< 0.50 ug/100cm2
PCB-1248	< 0.50 ug/100cm2
PCB-1254	< 0.50 ug/100cm2
PCB-1260	< 0.50 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4701

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF POST F-22

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 0.50 ug/100cm2
PCB-1221	< 0.50 ug/100cm2
PCB-1232	< 0.50 ug/100cm2
PCB-1242	< 0.50 ug/100cm2
PCB-1248	< 0.50 ug/100cm2
PCB-1254	< 0.50 ug/100cm2
PCB-1260	< 0.50 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Divisionof Parks, Recreation,
and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4702

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF POST L-10

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 0.50 ug/100cm2
PCB-1221	< 0.50 ug/100cm2
PCB-1232	< 0.50 ug/100cm2
PCB-1242	< 0.50 ug/100cm2
PCB-1248	< 0.50 ug/100cm2
PCB-1254	< 0.50 ug/100cm2
PCB-1260	< 0.50 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Divisionof Parks, Recreation,
and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No., 91-4703

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF FLOOR IN FRONT OF EXIT DOOR BY POST L-10

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	27 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4704

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF FLOOR IN FRONT OF EXIT DOOR BY POST L-19

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	17 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Divisionof Parks, Recreation,
and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4705

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF EXIT DOOR BY POST L-27

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 0.50 ug/100cm2
PCB-1221	< 0.50 ug/100cm2
PCB-1232	< 0.50 ug/100cm2
PCB-1242	< 0.50 ug/100cm2
PCB-1248	< 0.50 ug/100cm2
PCB-1254	< 0.50 ug/100cm2
PCB-1260	< 0.50 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4706

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF FLOOR IN FRONT OF EXIT DOOR BY POST L-27

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	8.4 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4707

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF MASTIC BY POST C-10

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	61 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4708

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/14/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF CHIP SHUTE WALL

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	75 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Divisionof Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No: 91-4709

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/14/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF MEN'S RESTROOM DOOR BY POST C-14

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	100 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4710

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF WOMEN'S RESTROOM DOOR BY POST C-22

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 0.50 ug/100cm2
PCB-1221	< 0.50 ug/100cm2
PCB-1232	< 0.50 ug/100cm2
PCB-1242	< 0.50 ug/100cm2
PCB-1248	< 0.50 ug/100cm2
PCB-1254	< 0.50 ug/100cm2
PCB-1260	< 0.50 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Divisionof Parks, Recreation, and Historic Preservation

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

RECEIVED
JAN 15 1991
WASTE MANAGEMENT PROGRAM
MISSOURI DEPARTMENT OF
NATURAL RESOURCES

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4711

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/14/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF FLOOR BY POST C-29

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	51 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4712

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB OF EXIT DOOR BY POST C-36

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	15 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Divisionof Parks, Recreation, and Historic Preservation

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4713

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB FLOOR BY 2ND FLOOR STAIRWAY DOOR

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	20 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4714

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB FROM FLOOR BETWEEN POSTS D-18 AND E-18

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	15 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. : 91-4715

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB FROM MASTIC ABOUT 6 FT. N.W. OF POST D-18

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 1.0 ug/100cm2
PCB-1221	< 1.0 ug/100cm2
PCB-1232	< 1.0 ug/100cm2
PCB-1242	< 1.0 ug/100cm2
PCB-1248	15 ug/100cm2
PCB-1254	< 1.0 ug/100cm2
PCB-1260	< 1.0 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

JOHN ASHCROFT
Governor

G. TRACY MEHAN III
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

LABORATORY SERVICES PROGRAM
RESULT OF SAMPLE ANALYSIS

Sample No. 91-4716

Reported to: ROBERT L. KRAGER
Affiliation: WMP

Date: 1/09/91
Project Code: 3569/3000

Sample Description:
ARMY AMMUNITION PLANT
ST. LOUIS, MO.
100 CM2 SWAB FROM STAIRWAY DOOR ON 2ND FLOOR BY POST C-12

Collected by: ROBERT L. KRAGER
Affiliation: WMP

Date: 01/03/91

PARAMETERS	RESULTS
PCB-1016	< 0.50 ug/100cm2
PCB-1221	< 0.50 ug/100cm2
PCB-1232	< 0.50 ug/100cm2
PCB-1242	< 0.50 ug/100cm2
PCB-1248	< 0.50 ug/100cm2
PCB-1254	< 0.50 ug/100cm2
PCB-1260	< 0.50 ug/100cm2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Laboratory Services Program
Division of Environmental Quality

cc: LYLE CROCKER, WMP

Alan - Here's a copy of MDNR's letter to you - Results were on 17 pages so they are below in summary.

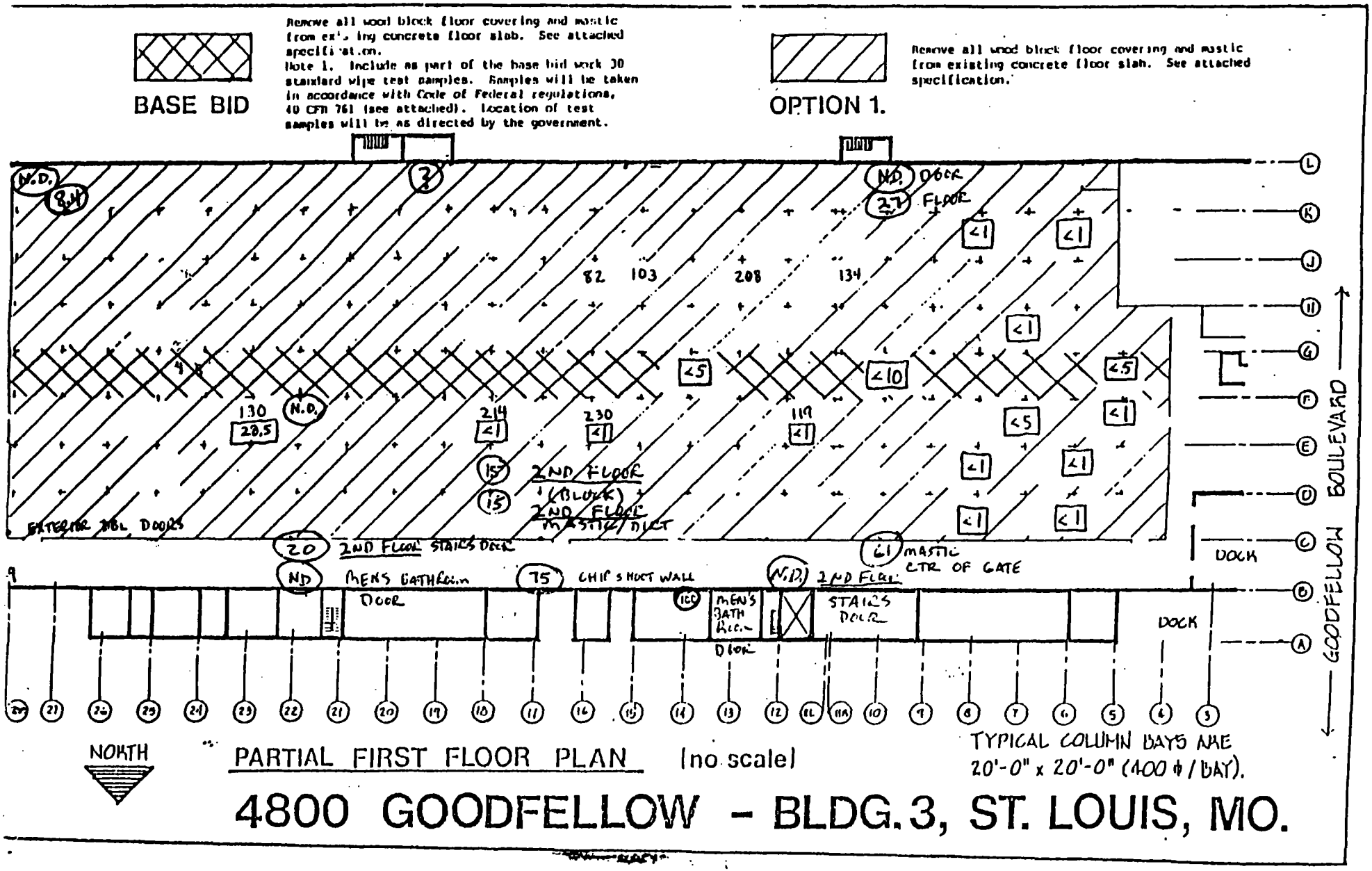
SAMPLE NUMBERS

		00	CONTROL	NON DETECT
VA AREA	30" up column post, N side	01	POST F-22	NON DETECT
VA AREA	48" up column post, N side	02	POST L-10	NON DETECT
VA AREA		03	FLOOR NEAR L-10	27 MICROGRAMS/100 CM^2
VA AREA		04	FLOOR NEAR L-19	17 NON DETECT
VA AREA	EXTERIOR DOOR	05	DOOR BY L-27	NON DETECT
VA AREA		06	FLOOR BY L-27	9.4
VA AREA -	FENCE	07	MASTIC BY C-10	C:
VA AREA -	FENCE	08	POST BY C-17	75
	BATHROOM ~~BLOCK~~ WALL	09	~~DOOR~~ BY C-14	100
	BATHROOM DOOR	10	DOOR BY C-22	NON DETECT
		11	FLOOR BY C-29	51
		12	POST BY C-36	15
2ND FLOOR	STAGING AREA STAIRWAY DOOR	13	DOOR BY C-32	20
2ND FLOOR	STAGING AREA	14	FLOOR BETWEEN D-18 AND E-18	15
2ND FLOOR	MASTIC/DIRT	15	16'NW OF D-18	15
2ND FLOOR	STAIRWAY DOOR	16	DOOR BY POST C-12	NON DETECT

15 Jan 91

ATTACHMENT 2 - PARTIAL FIRST FLOOR PLAN, BLDG 3

SWIPE TESTS (Mo DNR 1/3/91)



PARTIAL FIRST FLOOR PLAN (no scale)

TYPICAL COLUMN BAYS ARE 20'-0" x 20'-0" (400 ft / BAY).

4800 GOODFELLOW - BLDG. 3, ST. LOUIS, MO.

LEGEND : BLACK NUMBERS - PCB, mg/Kg MASTIC SAMPLE

RED WITH BOX - PCB, mg/Kg CONCRETE SAMPLE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

C/S · AISA
Put the game plan together for a quick clean up. Let me know of any prob's. Prepare reply with "mich stone".
25

FEB 20 1991

Major General Donald Williamson
Commander, AVSCOM
4300 Goodfellow Blvd. Attn: AMSAV-G
St. Louis, Missouri 63120-1790

Dear General Williamson:

NOTICE OF NONCOMPLIANCE

TSCA Docket Number VII-91-T-304

This letter is formal notification of the results of the January 2, 1991, inspection of U. S. Army Aviation Systems Command facilities at 4800 Goodfellow Boulevard, conducted by an authorized representative of the Environmental Protection Agency (EPA) pursuant to Section 11 of the Toxic Substances Control Act (TSCA), 15 U.S.C. Section 2601 et seq. The purpose of the inspection was to assess the command's efforts to comply with the Polychlorinated Biphenyls (PCB) Final Rule, 40 C.F.R. Part 761.

The inspection revealed the following violations:

Removal of PCBs from the facility is not in compliance with the National Spill Clean-Up Policy (40 CFR 761.125). Nine of sixteen samples taken by the EPA inspector revealed PCB levels greater than the clean-up standards.

Doug Elders, EPA, in a May 9, 1990, letter to Larry Wright outlined the standards for the national clean-up policy in some detail and informed him of the sampling and the levels to be attained prior to use of the building.

It appears that the above facility was not in compliance with 40 C.F.R. Part 761. ✓Within thirty (30) days of receipt of this notice, please advise EPA what steps you will take or have taken to remedy these apparent violations. You should provide this office with specific documentation of the compliance steps. Documentation should include:

1. Evidence of the removal and proper disposal of all contaminated mastic and wood from both floors of Building Three.

RECYCLE

2. Evidence of the removal and proper disposal of all contaminated plastic and fiberboard from the file storage area.

3. Decontamination of all non-porous surfaces to less than ten micrograms/100 cm^2 and verification of same by submitting results of analyses from post decontamination wipe sampling to this office.

4. Decontamination of all porous surfaces (concrete) to less than 10 parts per million PCBs as determined by destructive sampling (core sampling). Please submit a statistically based sampling plan to this office prior to such sampling and coordinate the sampling activity with this office so an inspector can be on-site to witness the activity and obtain split samples for EPA analysis.

Appropriate measures should be taken to protect the health of those individuals working in the building and remediation workers should wear proper protective equipment.

Receipt of this notice does not preclude EPA from taking further action. Any such action depends upon the steps taken or to be taken by you in response to this notice.

If you have any questions regarding this notice or your obligations under 40 C.F.R. Part 761, please contact me at (913) 551-2070. All correspondence should be addressed to David A. Phillippi, U.S. Environmental Protection Agency, ARTX/TOPE, 726 Minnesota Avenue, Kansas City, Kansas 66101. Please reference Docket No. VII-91-T-304 on all such correspondence.

Sincerely,

David A. Phillippi

David A. Phillippi
Toxic Substances Control Section
Toxics and Pesticides Branch

DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY AVIATION SYSTEMS COMMAND
4300 GOODFELLOW BOULEVARD, ST. LOUIS, MO 63120-1798

REPLY TO
ATTENTION OF

March 20, 1991

Administrative and Installation
Support Activity

SUBJECT: Notice of Noncompliance - TSCA Docket Number VII-91-T-304

Mr. David A. Phillippi
U.S. Environmental Protection Agency
ARTX/TOPE
726 Minnesota Avenue
Kansas City, Kansas 66101

Dear Mr. Phillippi:

Reference subject Notice of Noncompliance received by this Command on February 25, 1991. The specific documentation of our compliance steps is detailed as follows:

a. The first enclosure reflects completed actions taken since April 3, 1990 to effect the removal of polychlorinated biphenyl (PCB) contaminated material in Building 3 and render the areas in question to the cleanup standard of less than 10 ppm for porous surfaces as stated in the EPA letter of May 9, 1990. Our previous testing effort, described to your authorized representative from the Missouri Department of Natural Resources on January 2, 1991, centered on the first floor of Building 3 in the area designated for temporary Veterans Administration (VA) file storage. Results of such tests are summarized in the second enclosure. Copies of test results were previously furnished to your inspector.

(1) The third enclosure incorporates copies of the manifests generated by the removal of wood block and mastic from the first floor of Building 3 in the VA file storage area. The fourth enclosure details creosote block removal from the renovated portion of the second floor of Building 3. Such removal was accomplished by Plant Facilities and Engineering, Inc. under the operating contract with the Army Munitions and Chemical Command located in Rock Island, Illinois. Please note that the second floor sample test results referenced in the contractor's memorandum are listed in our second enclosure.

(2) Removal of the remaining wood block and mastic on both the first and second floors of Building 3 will be accomplished by an advertised contract; the specification and drawings for which are currently under design and preparation. A final draft package is scheduled to be completed and sent to our procurement personnel by April 15, 1991. We will provide you a copy of those specifications

and plans on or about that date. Any subsequent amendments will also be provided if you so desire. The solicitation package will then be advertised in accordance with Federal regulations and a bid opening should be scheduled for September, 1991. The contract should be awarded by the end of September, 1991, depending upon funding availability. Actions have been initiated to request funding for this project.

b. Plastic and fiber board in the VA file storage area will be removed and receive proper disposal with manifests after the VA files are removed. This material removal is a part of Phase VI of PCB Cleanup Solicitation Package currently being prepared

c. As you requested in paragraph 3 of your Notice of Noncompliance, results of analyses from post decontamination wipe sampling of nonporous surfaces will be furnished to your office as a part of the above detailed contract.

d. Decontamination of porous surfaces (concrete) by core sampling will be included in the cleanup contract. A statistically based sampling plan will be submitted to your office prior to our contract being awarded. Per your request, our authorized Government Representative and the contractor will be required to coordinate the said sampling activity with your office so your inspector can be on-site to witness the activity and obtain split samples for your analysis.

The fifth enclosure summarizes the schedule of projected actions at this facility dealing with PCB decontamination. The durations of the contract decontamination phases are based upon estimated time for material removal and time for complete testing of each phase. Also, they are sequenced to provide orderly movement of any existing activities. Our contract specifications will require extensive protection to prevent particulate migration and therefore contribute to the duration of the phases.

Steps have been taken to restrict access to remaining wood block areas on the first and second floors of Building 3 by constructing temporary walls and overlaying certain block areas with fiberboard where maintenance and security personnel must traverse. Such materials will be removed under the cleanup contract in the appropriate disposal manner.

If you have any questions regarding the above data, please contact Mr. Larry Wright, 314-263-2114, or Mr. Gary Turner, 314-263-2273. It has been and continues to be our intent to comply with applicable environmental regulations pertaining to TSCA Docket Number VII-91-T-304.

Sincerely,

Donald R Williamson

Donald R. Williamson
Major General, U.S. Army
Commanding

Enclosures

Copies Furnished:

Mr. Richard Jenson (Legal Office)
Mr. John Darr (Plant Facilities
and Engineering, Inc.)
Mr. Raymond Boles (SLAAP COR)

COMPLETED ACTIONS

DATE	ITEM
1 October 1989	Plant property transferred to Aviation Systems Command (AVSCOM). The U.S. Army Armament, Munitions and Chemical Command (AMCCOM) retained operational control for the next year.
3 April 1990	Determined that polychlorinated biphenyls (PCBs) were present in wood block floor on first floor, Building 3, due to PCBs in cutting oil from production machines. Present in mastic under block. Based on 4 tests of mastic on first floor taken on 30 March 1990 by General Services Administration (GSA) personnel.
6 April 1990	U.S. Environmental Protection Agency (EPA) advised of test results telephonically by Mr. Alan Gibson, AVSCOM Environmental Coordinator.
18 April 1990	Three concrete floor samples were taken on second floor of Building 3. Results met cleanup standards of <10 ppm.
9 May 1990	Letter from EPA recommending building not be used for office space until PCBs were removed in accordance with cleanup levels.
17 May 1990	Wood block test, second floor, Building 3. Results were less than 10 ppm.
	Two wood blocks were tested on first floor.
22 August 1990	Four concrete floor tests were taken after mastic was removed, first floor, stripped area. Met cleanup standards.
	Four mastic tests were taken, first floor. Exceeded cleanup standards, substantiating 3 April tests.
6 September 1990	Four additional first floor concrete sample tests were taken; three of the four met cleanup standards.
1 October 1990	AVSCOM took over operational control of Plant from AMCCOM, Rock Island, Illinois.
3 October 1990	GSA contractor took nine concrete test samples after mastic and surface stripping in proposed Veterans Administration (VA) file storage area. All met cleanup standards.

12 October 1990	GSA contractor took twelve additional tests in the balance of VA storage area. Nine were concrete samples which met cleanup standards. The three others were at locations where cleanup had not been completed, therefore, results did not meet cleanup standards.
26 October 1990	GSA contractor took six additional concrete tests at the same three locations that were taken as stated above, but after cleanup was completed. Results met cleanup standards.
29 October 1990	VA was advised by letter from AVSCOM of tests results of their storage area stating it was ready for occupancy.
Mid-December 1990	Removal of remaining PCBs at the Ammunition Plant was identified as number one design project priority.
2 January 1991	Missouri Department of Natural Resources (DNR) inspector appeared at SLAAP for an unannounced inspection. Swipe tests were taken on 3 January 1991 by inspector. Taken on walls and other floor areas on first and second floors, Building 3.
18 January 1991	Environmental project design work for the commercial activities contractor at SLAAP was identified by memorandum to the contractor.
24 January 1991	Tests results were provided by DNR. Nine of sixteen tests taken indicated readings above cleanup standard. No tests were taken in occupied office areas.
31 January 1991	A memorandum detailing the scope of work for cleanup was provided to commercial activities contractor in view of DNR testing.
5 February 1991	Met with commercial activities (CA) to discuss scope of work and develop with the CA contractor action to restrict access to remaining block floor areas. It was determined to take additional testing of walls to further define the scope of work.
13 February 1991	Meeting with the Chief of Staff was held to formulate priority environmental actions and establish additional environmental staffing.
19 February 1991	Presented to Chief of Staff a written package for additional environmental staffing.
22 February 1991	The CA contractor submitted first draft of cleanup specificiations and plans.

25 February 1991	Notice of Noncompliance from EPA was received on this date.
1 March 1991	Returned first draft with comments to CA contractor.
14 March 1991	Reviewed and developed with CA contractor order and sequence of work (seven phases).

ATTACHMENT 1

SUMMARY OF PCB ANALYSIS

DATE	SAMPLE IDENTIFICATION	PCB, PPM AS AROCLOR 1248
30 Mar 90	1st Floor, Dirt (Mastic)	
	J-10 to J-11	134
	J-12 to J-13	288
	J-14 to J-15	103
	J-15 to J-16	82
18 Apr 90	2nd Floor, Concrete Drilling Each Sample Drilled w/ 3/8 In Approximately 4 In Deep	PCB, MG/KG
	Jar 1, J-22 to J-23	<1
	Jar 2, J-18 to J-19	4* *AS AROCLOR 1260
	Jar 3, J-15 to J-14	<1
17 May 90	2nd Floor, Wood Block	2** **AS AROCLOR 1242
17 May 90	1st Floor, Wood Block #1	2200
	Wood Block #2	71
22 Aug 90	1st Floor, During Removal of Concrete Dust	
	F-7	<5
	G-5	<5
	G-10	<10
	G-14	<5
	1st Floor, Mastic	
	F-12	119**
	F-16	230**
	F-18	214**
	F-22	130**
6 Sep 90	1st Floor, After Removal of Concrete Dust	
	F-12	<1
	F-16	<1
	F-18	<1
	F-23	23.1**, 5.4*** ***AS AROCLOR 1254

SUMMARY OF PCB ANALYSIS (CONTINUED)

DATE	SAMPLE IDENTIFICATION	PCB, PPM AS AROCLOR 1248
3 Oct 90	1st Floor, After Removal of Concrete Dust	
	D-8	<1
	E-8	<1
	K-6	<1
	H-7	<1
	E-6	<1
	D-6	<1
	F-5	<1
	K-8	<1
	F-8	<1
12 Oct 90	K-12	14.6
	H-12	<1
	F-12	<1
	D-12	<1
	K-18	<1
	H-18	<1
	F-18	<1
	D-18	<1
	K-25	<1
	H-25	5.2
	F-25	14.5
	D-25	47.9
26 Oct 90	1st Floor, After Cleanup of Concrete Dust 6 In Either Side of Above Hot Spots	
	K-12	6.2
	K-12 (180° Out)	1.7
	D-25	9.5
	D-25 (180° Out)	4.7
	F-25	2.0
	F-25 (180° Out)	<1

SCHEDULE OF PROJECTED ACTIONS

DATE	ITEM
15 April 1991	Submit Bid Package for Wood Block Removal and Testing to AVSCOM Procurement.
15 May 1991	Final Bid Package Prepared. Notice Published in Commerce Business Daily.
31 May 1991	Provide copy of Statistical Sampling Plant to EPA.
15 July 1991	Issue Invitation for Bid.
15 August 1991	Receive Bids.
15 September 1991	Award (If Funds are Available).
30 September 1991	Pre-Construction Conference.
15 October 1991	Notice to Proceed.
22 October 1991	Begin Phase I Cleanup and Testing - Second Floor, Building 3, All Unfinished Floor Areas (270 Days Duration); Includes All Stairwells to Basement Floor.
22 July 1992	Complete Phase I.
5 August 1992	Begin Phase II Cleanup and Testing - First Floor, Building 3, Columns A to G-28 to 43 (150 Days Duration).
5 January 1993	Complete Phase II.
19 January 1993	Begin Phase III Cleanup and Testing - First Floor, Building 3, Columns G to L-33 to 43 (90 Days Duration).
19 April 1993	Complete Phase III.
2 May 1993	Begin Phase IV Cleanup and Testing - First Floor, Building 3, Columns A to C-16 to 28 (90 Days Duration).
2 August 1993	Complete Phase IV.
16 August 1993	Begin Phase V Cleanup and Testing - First Floor, Building 3, Columns A to C-1 to 16 and C to H-1 to 4 (150 Days Duration).

16 January 1994	Complete Phase V.
30 January 1994	Begin Phase VI Cleanup and Testing - First Floor, Building 3, Columns C to L-4 to 28 (90 Days Duration).
30 April 1994	Complete Phase VI.
14 May 1994	Begin Phase VII Cleanup and Testing - First Floor, Building 3, Columns G to L-28 to 33 (90 Days Duration).
14 August 1994	Complete Phase VII and Total Project.

DEPARTMENT OF THE ARMY
ADMINISTRATIVE AND INSTALLATION SUPPORT ACTIVITY (AVSCOM)
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MISSOURI 63120-1798

March 24, 1992

Environmental Compliance
Division

SUBJECT: Polychlorinated Biphenyl (PCB) Block Removal/Cleanup Contract, St. Louis Army Ammunition Plant (SLAAP)

Mr. David A. Phillippi
U.S. Environmental Protection
Agency
ARTX/TOPE
726 Minnesota Avenue
Kansas City, Missouri 66101

Dear Mr. Phillippi:

This is in response to our telephone conversation on March 13, 1992 regarding the above subject.

Pursuant to the Notice of Noncompliance (NON) issued by your office on February 20, 1991, a PCB Block Removal Contract/Cleanup Program is in progress at SLAAP. The hazardous material removal contract is in accordance with documentation we previously furnished you prior to contract award. As a part of our contract, Chemical Waste Management, Inc. (Contractor) is removing paint, oily residue, and residual dust from the building walls up to a height of 8 feet, 6 inches. Per our conversation on March 13th, we agreed that decontamination up to this height would remove any immediate health threat.

Three additional random samples of areas above 8 feet, 6 inches (2 light fixtures and 1 beam) were taken. The areas chosen were considered to be the "dirtest" of those not previously tested. The two grab/wipe samples taken from the tops of the light fixtures (approximately 140 feet apart) indicated toxicity levels above allowable limits. However, these levels do not pose an immediate health hazard since they are in a very low contact area.

In summary, per our telephone conversation, the following was agreed to:

a. Clean up the immediate work area to a height of 8 feet, 6 inches to remove the immediate health threat as currently specified in our contract.

b. Clean the two light fixtures that tested positive to bring them back within "safe" limits.

14 Mar 92

c. Thoroughly clean the work area prior to moving personnel/ equipment back.

Furthermore, your Agency is to provide us a recommendation regarding sampling/on-site inspection of SLAAP. Several possibilities have already been discussed. EPA may:

a. Use Contractor data/test results directly.

b. "Split" samples with Contractor. (Currently in our contract per your NON of February 20, 1991.)

c. Sample/inspect areas separately.

If you have any questions, please feel free to call me at 314-263-1448. I look forward to your response.

Sincerely,

MR. TURNER

MR. MOGLIA/mb/227

Henry J. Moglia
Chief, Environmental Compliance
Division

Copies Furnished:

Mr. Larry E. Wright (SAVAI-G)
Mr. Gary M. Turner (SAVAI-F)
Mr. John W. Patterson (PCB COR)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

APR 09 1992

Mr. Henry Moglia
Chief, Environmental Compliance Division
Department of the Army
AVSCOM/SAVAIA-A
4300 Goodfellow Boulevard
St. Louis, Missouri 63120-1798

Dear Mr. Moglia:

This is in response to your March 24, 1992, letter concerning the cleanup of the St. Louis Army Ammunition Plant. Please be aware that all areas of the building which may have been contaminated with PCBs, including those areas above eight feet, six inches, must be sampled. If pre-cleanup sampling indicates contamination greater than $10\mu g/100cm^2$, decontamination will be required.

A statistically based sampling plan should be implemented after cleanup to verify decontamination to the level specified by 40 C.F.R. § 761.125(c)(4)(i)-(iii) ($10\mu g/100cm^2$ as determined by standard wipe test).

If you have questions or need further information, please contact Dave Phillippi of my staff at (913) 551-7020.

Sincerely,

Robert W. Jackson, Chief
Toxic Substances Control Section

REC'D 14 APR 92

RECYCLE

? Apr 92

DEPARTMENT OF THE ARMY
HEADQUARTERS, US ARMY AVIATION AND TROOP COMMAND
4300 GOODFELLOW BOULEVARD, ST. LOUIS, MO 63120-1798

REPLY TO ATTENTION OF

SATAI-Z (405-70a)

6 October 1992

MEMORANDUM FOR Commander, U.S. Army Materiel Command, ATTN: AMCEN-R, 5001 Eisenhower Avenue, Alexandria, Virginia 22333-0001

SUBJECT: Report of Excess, St. Louis Army Ammunition Plant (SLAAP)

1. Reference AR 405-90, Appendix B, Disposal of Real Estate, and AMC Supplement 1 thereto.

2. This is a memorandum report recommending the excessing of SLAAP in accordance with the above references. The following information is furnished as required by references:

a. B-1:

(1) The original St. Louis Ordnance Facility was constructed in 1941-42 on 276 acres and was the largest ammunition plant in the world. In 1944, the present St. Louis Army Ammunition Plant (SLAAP) of 21 acres was converted to 105mm shell, metal parts production. After World War II, the Plant was placed in a standby status. SLAAP was activated twice to support military operations. From 1951-54, the Plant produced 105mm metal parts for the Korean Conflict. From 1966-70, the Plant produced the same parts for the Viet Nam Conflict.

(2) In 1989, the Army determined that the Plant was no longer required to support its ammunition mission. All industrial equipment was therefore removed. On 1 October 1990, complete ownership and operational control of SLAAP was shifted to the U.S. Army Aviation Systems (now the Aviation and Troop Command (ATCOM)) from the U.S. Army Armament, Munitions and Chemical Command.

(3) The 21 acres of the St. Louis Army Ammunition Plant located at 4800 Goodfellow Boulevard, St. Louis, Missouri, are all that remain of the original 276 acre facility. The location is in the northwestern section of the City and is bounded on the west by Goodfellow Boulevard; north and east by Interstate Highway 70 area; and adjacent to the Plant on three sides are industrial areas and on the fourth side residential area. There is no civilian encroachment adjacent to the Plant. Total acquisition cost was $89,004,000.00.

(4) The excessing action is not involved with any reduction or realignment as stated in AR 5-10. This action will not affect installation resources. It will have little or no effect on the local civilian community.

b. B-2: Not Applicable. This is not public domain land.

c. B-3: Please see attached site map showing the buildings and utilities proposed for disposal.

d. B-4: We are not aware of any Congressional involvement in this disposal.

e. B-5: An environmental preliminary assessment screening at SLAAP will be conducted in FY 93. A limited cleanup inside Building 3 is in progress. It is our belief that after the environmental screening is finished, a better understanding of how to address any other environmental problems or necessary cleanups of this site will be obtained. The environmental screening will not be available until some time in Mid-1993.

f. B-6: The responsible agency for custody and accountability is ATCOM. Partial Legislative Jurisdiction exists at SLAAP. Utility costs would be less if the Plant was vacant. It is desirable to keep all services in place pending transfer to another Federal agency or disposal by the General Services Administration (GSA). There is no equipment to be disposed of. All property that remains is installed.

g. B-7: Not Required.

h. B-8: No restoration is to be performed.

i. B-9: Not Applicable.

j. B-10: Not Applicable.

k. B-11: Summary of Property.

(1) Land Usage: The following are the existing land uses and their estimated acreage:

Administrative	13 Acres
Parking Space and Streets	5 Acres
Grass Areas	3 Acres
Missouri State Highway Easement	1.3 Acres
St. Louis County Easement	.3 Acre
Laclede Gas Easement	.01 Acre

(2) Population On Site:

Contractor Personnel	46
Government COR Personnel	3
Government Personnel (To Be Moved During FY 93 To 4300 Goodfellow Boulevard, Current ATCOM Headquarters, Federal Center (GSA-Owned)	500 (EST)

NOTE: There are no military or civilian personnel living at SLAAP. Approximately 30 Veterans Affairs personnel with 4,000 file cabinets will be occupying 50,000 square feet of space on the second floor of Building 3 in February 1993 under a Reimbursable Memorandum of Understanding (MOU) between ATCOM and the Veterans Administration (VA). The usage of space was requested by GSA and VA at the behest of the Department of the Army. The MOU will be subject to a 60 day cancellation notice by either party.

(3) Buildings - Existing: Summary - Percent of total square footage of each building that has occupied active areas.

Building 3, First Floor	20%
Building 3, Second Floor	60%
Building 5, Both Floors	100%
Building 6, Both Floors	100%

(4) Buildings - Unoccupied:

Building 1 - Billet
Building 2 - Forge
Building 4 - Compressor
Building 7 - Pump House
Building 11 - Foamite
Building 13 - Fire Hose
Building 14 - Guard Shack
Building 15 - Guard Shack
Building 16 - Guard Shack
Building 17 - Guard Shack

(5) SLAAP should not be included in the industrial reserve.

l. B-12: The floodplains, wetlands and endangered species information will be part of the environmental preliminary assessment screening.

m. B-13: GSA has expressed interest in acquiring the installation for possible use as Government-owned property for future Government Agency use.

n. B-14: Point of contact for this action is Mr. Gary Turner, DSN 693-2273 or Commercial 314-263-2273.

o. B-15: This proposed excess action is not the result of an EO 12512 Survey.

p. B-16: District Engineer estimate of fair market value of the subject property has not been requested as yet. Such a request will await further guidance from AMCEN-R. It is anticipated that funding to the Corps of Engineers for such an estimate will be required.

q. B-17: Three copies of site and utility drawings are attached (encls 1 & 2).

Donald R Williamson

2 Encls

DONALD R. WILLIAMSON
Major General, USA
Commanding

AMCEN-R (SATAI-F/6 Oct 92) (405-90) 1st End M. Longo/ lap/DSN 284-9899
SUBJECT: Request for Excess, St. Louis Army Ammunition Plant (SLAAP)

22 DEC 1992

CDR, USAMC, 5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333-0001

FOR COMMANDER, HEADQUARTERS, U.S. ARMY AVIATION AND TROOP COMMAND, ATTN: SATAI-F, 4300 GOODFELLOW BOULEVARD, ST. LOUIS, MO 63120-1798

1. Your request for approval to excess the St. Louis Army Ammunition Plant (SLAAP) is returned for additional information. The enclosed report will not be accepted by Headquarters Department of the Army (HQDA) for disposal without the required environmental documentation as required by AR 405-90. In addition, HQDA has indicated that they will not accept the report of excess for screening with other DOD activities without a Preliminary Assessment Screening (PAS).

2. Enclosure 3, your memorandum, SATAI-F, 10 Nov 92, subject as above with attached Inventory of Military Real Property for the St. Louis Army Ammunition Plant is also returned. Request you submit the enclosed inventory report as part of the excess report as required by AR 405-90.

3. Please have the required environmental documentation including the PAS prepared and resubmit the report of excess with all the required documentation (four complete copies of the document) for our approval and submittal to HQDA.

4. Point of contact for this action is Ms. Longo, commercial (703) 274-9899, DSN 284-9899.

5. AMC -- America's Arsenal for the Brave.

Stanley H. Fried

STANLEY H. FRIED
Chief, Real Estate Management Division
Office of the Deputy Chief of Staff
for Engineering, Housing, Environment
and Installation Logistics

3 Encls
1-2. nc
Added 1 encl
3. as

Founded 1929 St. Louis Testing Laboratories INCORPORATED

2810 Clark Avenue • St. Louis, MO 63103-2574 • (314) 531-8080 • FAX (314) 531-8085

May 13, 1993
Lab No. 93C-0798
Invoice No. 30334
P. O. No. 9-3-167

PLANT FACILITIES & ENGINEERING
4800 Goodfellow Blvd.
St. Louis, MO 63148

Attention: Paul Kohlberg

REPORT OF TESTS

SAMPLE ID: 6-2-RRN18, 5-1-RRN41, 5-1-DFQ31, 6-1-RRN17, 3-1-DFL34 3-2-DF35, 3-2-RRL6, 3-1-RRL1, 5-2-RRN33 AND 6-1-DFN20

RESULTS: ppb Except As Noted

SAMPLE ID	Copper	Lead	Total Coliform
6-2-RRN18	10	20	<1 col/100ml
5-1-RRN41	12	ND	<1 col/100ml
5-1-DFQ31	143	ND	<1 col/100ml
6-1-RRN17	35	ND	<1 col/100ml
3-1-DFL34	23	ND	<1 col/100ml
3-2-DF35	60	ND	<1 col/100ml
3-2-RRL6	14	ND	<1 col/100ml
3-1-RRL1	60	ND	<1 col/100ml
5-2-RRN33	10	ND	<1 col/100ml
6-1-DFN20	10614	5	<1 col/100ml

ND: Not Detected/ Method Detection Limit 10 for Copper, 5 for Lead, and 1 col/100ml for Total Coliform.

Method Number: 200.7 for Copper, 239.2 for Lead, and 9222 for Total Coliform.

Identification of tested specimens provided by the client.

Ronald A. Besse
Manager Inorganic
Chemistry Department

ACCREDITED

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

MAY 2 8 1993

Mr. Larry E. Wright
Director, Administrative and
Installation Support Activity
Department of the Army
Headquarters, US Army Aviation
and Troop Command
4300 Goodfellow Boulevard
St. Louis, Missouri 63120-1798

Dear Mr. Wright:

We are in receipt of your May 11, 1993, letter which outlines your plans for completing the remediation of building three at the subject site. There are three areas we would like to see more thoroughly addressed:

1. Statistically based wipe or destructive sampling of the HEPAVAC'd areas above 8 1/2 feet on the first and second floors. Compositing associated with this type of sampling could significantly reduce the number of actual samples and minimize cost, while still characterizing the area.

2. Please be more specific concerning the 1,200 square foot area for which encapsulation is proposed. What is the encapsulant? What are its performance specifications? What will be the future use of this area? What type of maintenance plan will be implemented to insure the integrity of the encapsulant? Encapsulation cannot be initiated without EPA approval. Providing the above information will allow us to determine if encapsulation is an acceptable alternative.

3. Please address future plans for the chip chute wall, the chip chute, and the basement. These areas must be cleaned to levels specified in the spill cleanup policy. Please detail how this will be accomplished.

Please call Dave Phillippi of my staff at (913) 551-7395 if you have questions.

Sincerely,

Robert W. Jackson
Chief, Toxic Substances
Control Section

RECYCLE

DEC 06 1993

Mr. Jerry Presley
Missouri Department of Conservation
P.O. Box 180
Jefferson City, Missouri 65102

Dear Mr. Presley,

The U.S. Army Aviation and Troop Command (ATCOM) is proposing to excess the St. Louis Army Ammunition Plant (SLAAP) located at 4800 Goodfellow Boulevard, at the intersection of Interstate 70 and Goodfellow in St. Louis, Missouri. An excessing action by the Army allows the property to be offered for transfer to another agency or public sale. An environmental assessment is required for this action by the National Environmental Policy Act (NEPA).

SLAAP was constructed in 1941 for production of small arms ammunition and industrial activity continued intermittently until 1969. SLAAP currently encompasses 21 acres housing 6 major buildings and several small structures.

SLAAP is an industrial site with nearly all land covered with buildings and asphalt. The uncovered land is covered with grass. Based on the present condition and location of the facility and past site investigations, it is our belief that the proposed excessing action will have no impact on animal and plant species. The closest body of water is the Mississippi River. According to Mr. Mark Haas, Fisheries District Supervisor, Missouri Department of Natural Resources-St. Louis District, due to SLAAP's distance from the Mississippi, there is no effect to fish life.

We request that you review the site location (map enclosed) to confirm our assessment of no impact to endangered animal or plant species. As part of your response, please include a list of animal and plant species indigenous to this area in St. Louis. This information will be part of the environmental assessment.

Should you have any questions or require additional information, please contact Ms. Nancy Springman or Mr. Jim Kuehnle at (314) 263-2273. Thank you for your assistance.

COORDINATION:
N. SPRINGMAN NAS 12/2/93
H. MOGLIA
L. WRIGHT 12/2/93

Sincerely,

Encl

Larry E. Wright
Director, Administrative and
Installation Support Activity

6 Dec 93

DEC 13 1993

Mr. Michael Weichman
Senior Archeologist
Missouri Department of Natural Resources
Division of Historic Preservation
P.O. Box 176
Jefferson City, Missouri 65102

Dear Mr. Weichman,

The U.S. Army Aviation and Troop Command (ATCOM) is proposing to excess the St. Louis Army Ammunition Plant (SLAAP) located at 4800 Goodfellow Boulevard, at the intersection of Interstate 70 and Goodfellow in St. Louis, Missouri. An excessing action by the Army allows the property to be offered for transfer to another agency or public sale. An environmental assessment is required for this action by the National Environmental Policy Act (NEPA).

SLAAP was constructed in 1941 for production of small arms ammunition and industrial activity continued intermittently until 1969. SLAAP currently encompasses 21 acres, housing 6 major and several small structures.

In 1984, both historical and archeological investigations were conducted at SLAAP (encl). The historical report identified three buildings as potential Category III historic properties based on the World War II industrial machinery present in those buildings. In October 1988, all industrial machinery was removed from the facility. The removal was performed after coordination from your office. At that time, your office determined that "none of the structures or associated industrial equipment involved are eligible for inclusion in the National Register of Historic Places." (encl)

Based on the 1984 reports and your past coordination, ATCOM has determined that there are no historical or archeological properties located at SLAAP. Your concurrence is requested and will be included as part of the environmental assessment.

For additional information, please contact Ms. Nancy Springman of the Environmental Compliance Division at (314) 263-2273.

Sincerely,

COORDINATION:
N. SPRINGMAN 12/13/93
for H. MOGLIA 12/13/93
L. WRIGHT

Encl

Larry E. Wright
Director, Administrative and Installation
Support Activity

13 Dec 93

MISSOURI DEPARTMENT OF CONSERVATION

MAILING ADDRESS
P.O. Box 180
Jefferson City, Missouri 65102-0180

STREET LOCATION
2901 West Truman Boulevard
Jefferson City, Missouri

Telephone: 314/751-4115
Missouri Relay Center 1-800-735-2966 (TDD)
JERRY J. PRESLEY, Director

December 29, 1993

Mr. Larry E. Wright
Director, Administrative and
Installation Support Activity
Department of the Army
Headquarters, US Army Aviation
and Troop Command
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

Dear Mr. Wright:

Thank you for the request for natural resources that may be impacted by the proposal to excess the St. Louis Army Ammunition Plant located at the above address. Enclosed is a list of rare and endangered species and other sensitive environmental concerns in the vicinity of this plant. We do not believe their will be any significant adverse impacts associated with the proposed action.

If further coordination is required on this proposed activity, please contact Mr. Norm Stucky at the above address.

Sincerely,

Dan F. Dickneite

DAN F. DICKNEITE
PLANNING DIVISION CHIEF

Enclosure

STATE OF MISSOURI Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF STATE PARKS
P.O. Box 176 Jefferson City, 65102-0176 (314) 751-2479
FAX (314) 751-8656

January 21, 1994

Larry E. Wright, Director
Administrative & Installation Support Activity
Headquarters U.S. Army Aviation & Troop Command
4300 Goodfellow Boulevard
St. Louis, Missouri 63120-1798

Re: Proposed St. Louis Army Ammunition Plant Excess Property Disposal Project (DOA), 4800 Goodfellow Boulevard, St. Louis, Missouri

Dear Mr. Wright:

In response to your letter dated 13 December 1993 concerning the above referenced project, the Historic Preservation Program has reviewed the information provided and has determined that none of the structures involved are eligible for inclusion in the National Register of Historic Places. Therefore, we have no objections to the initiation of project activities relative to this structure.

However, if the currently defined project area or scope of project-related activities are changed or revised, the Missouri Historic Preservation Program must be notified and appropriate information relevant to such changes or revisions be provided for further review and comment, in order to ascertain the need for additional investigations.

If you need further assistance, please write; or call (314) 751-7958.

Sincerely,

HISTORIC PRESERVATION PROGRAM

Michael S. Weichman
Senior Archaeologist

mc